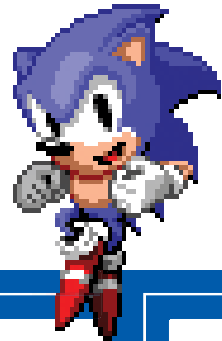
OLD!

THE ESSENTIAL GUIDE TO CLASSIC GAMES

Retro GAMER™



AMSTRAD | COMMODORE | SEGA | NINTENDO | ATARI | SINCLAIR | NEO-GEO | SONY | COIN-OP | MOBILE

GOING BEHIND ENEMY LINES!

OCEAN SOFTWARE STAFF DISCUSS THE HISTORY OF TAITO'S EPIC ARCADE GAME



PLUS: BLAGGER & SON OF BLAGGER

SEGA'S BIG GAMBLE

DID TWO ADD-ON PERIPHERALS TARNISH THE REPUTATION OF SEGA'S 16-BIT MEGA DRIVE?

YARS' REVENGE!

THE STORY BEHIND THE ATARI 2600 BLASTER



11 SUPER FAMICOM HITS

ALSO INSIDE

- THRUST
- SAMBA DE AMIGO
- STREET FIGHTER V
- SUPER MONACO GP
- 40 YEARS OF APPLE
- TORNADO LOW LEVEL
- OMIKRON: THE NOMAD SOUL

RAREWARE™



STACKING UP IN THIS ISSUE

HOW RARE RULED THE NINTENDO 64

THE RIVALRY AND GAMES THAT MARKED RARE'S GOLDEN YEARS ON THE 64-BIT CONSOLE

LICENCE TO THRILL: ROBOCOP

WAS THE COMPUTER CONVERSION A WORTHY COUNTERPART TO PAUL VERHOEVEN'S HIT FILM?

ip IMAGINE PUBLISHING
Digital Edition
GreatDigitalMags.com
ISSUE 153



WELCOME BACK TO RETRO_

funstock
RETRO.co.uk

THE RETROBATES

FAVOURITE RARE GAME



DARRAN JONES

I'm going to go for *Banjo-Kazooie*. This may be controversial, but I actually enjoy it more than *Super Mario 64*.
Expertise:
Juggling a gorgeous wife, two beautiful girls and an award-winning magazine
Currently playing:
The Legend Of Zelda: Twilight Princess HD
Favourite game of all time:
Strider



GRAEME MASON

The game I bought an N64 for: *GoldenEye 007*. Also about the only game I played on my N64!
Expertise:
Adjusting the tape azimuth with a screwdriver
Currently playing:
Star Trek Voyager: Elite Force
Favourite game of all time:
Resident Evil 4



DAVID CROOKES

It has to be *GoldenEye 007* which shook and stirred me when it was released – a classic first-person shooter.
Expertise:
Amstrad, Lynx, adventures, Dizzy, and PlayStation (but is it retro? Debate!)
Currently playing:
Lots of *Microïds* games
Favourite game of all time:
Broken Sword



NICK THORPE

Blast Corps, because there's still nothing quite like it. Can we have a sequel now, please?
Expertise:
Owning five Master Systems (I sold two)
Currently playing:
Metal Slug Anthology
Favourite game of all time:
Sonic The Hedgehog



MARTYN CARROLL

Blast Corps. I'd just bought a PlayStation and this was the one N64 game that made me wonder whether I'd backed the wrong horse.
Expertise:
Sinclair stuff
Currently playing:
Resident Evil 0
Favourite game of all time:
Jet Set Willy



PAUL DRURY

I've put most hours into multiplayer *GoldenEye 007* but I also have a soft spot for *Diddy Kong Racing* and those cute little planes which I could never get the hang of controlling…
Expertise:
Factory-damaged Spectrums
Currently playing:
Heavy Rain (again)
Favourite game of all time:
Sheep In Space



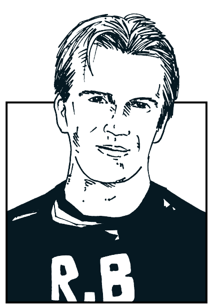
CRAIG GRANNELL

Not being overly familiar with them, I tried lobbing a dart at a list and missed, so my answer is, "AIIIEEE!"
Expertise:
Games that don't require 32 digits to play
Currently playing:
Love You To Bits
Favourite game of all time:
H.E.R.O.



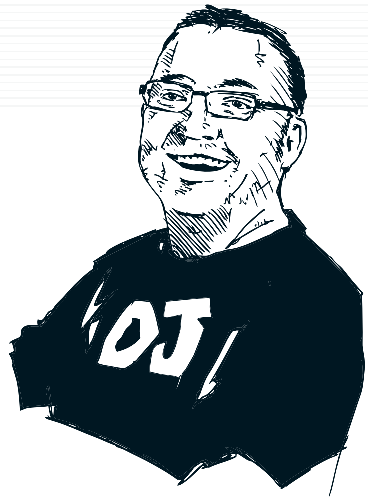
PAUL DAVIES

My favourite Rare game is *Diddy Kong Racing*.
Expertise:
Writing much better in my sleep
Currently playing:
Tom Clancy's The Division
Favourite game of all time:
Ghouls 'N Ghosts



RICHARD BURTON

While *GoldenEye* will undoubtedly (and quite rightly) garner lots of love, I always found *Blast Corps* to be immensely satisfying and more fun to play.
Expertise:
Time travel
Currently playing:
Finders Keepers
Favourite game of all time:
Manic Miner



When did Sega lose its way as a hardware manufacturer? It's an interesting question and depending on the person you speak to you'll most likely get a different answer. Typically, though, some feel that things started to go awry for Sega with the introduction of its Mega-CD and 32X.

It's easy to forget what a big deal the advent of CD-ROM gaming was, but every developer and publisher wanted a piece of the action. With all its competitors working on their own CD-based system Sega had no choice but to follow suit, and it's those ramifications that we'll be looking at this issue. I still have mixed feelings about the Mega-CD, as it just feels like a wildly inconsistent console, but it certainly had a far higher hit rate than Sega of America's ill-advised follow-up, the 32X.

Sega might not have been able to win over the Mega Drive masses with its peripherals, but it tried and games like *Sonic CD*, *Batman Returns* and *Silpheed* make me glad it did.

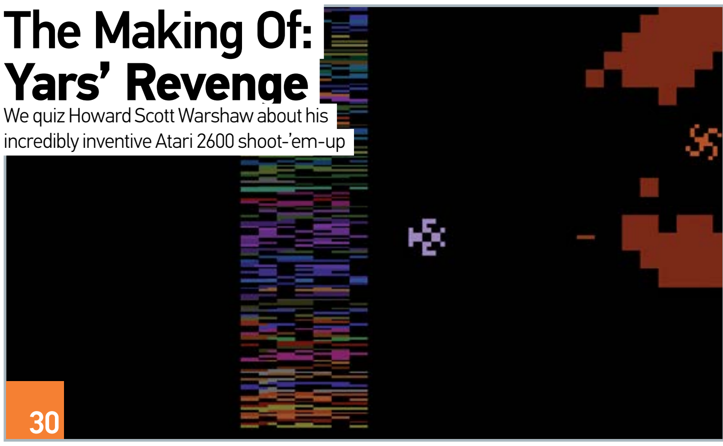
Oh and if you don't care for the add-ons of Sega's 16-bit console we also have great articles on *Operation Wolf*, *Super Monaco GP*, Apple, Rare's impact on the Nintendo 64 and much, much more.

Enjoy the magazine!



CONTENTS

>> Load 153 Breathing new life into classic games







RETRO RADAR

REVIVALS

FEATURED



Don't forget to follow us online for all your latest retro updates

RetroGamerUK
@RetroGamer_Mag
Retro Gamer Magazine
@RetroGamerMag
retrogamer@imagine-publishing.co.uk





retro radar

GIVE US TWO MINUTES AND WE'LL GIVE YOU THE RETRO WORLD



» Dave Needle attending the Amiga 30 celebration in 2015. © Jonathan Garcia



» Fergus once told *The Guardian* "In 1995 I was given a lifetime achievement award. That's too young".

THE INDUSTRY LOSES TWO LEGENDS

We pay tribute to Dave Needle and Fergus McGovern

This year hasn't had the best of starts, if we're honest. In addition to losing the likes of David Bowie and Alan Rickman (both, tragically, to cancer) we also have to say a sad farewell to two very notable gaming personalities.

The first loss was Dave Needle who passed away on 20 February. Needle was a gaming pioneer and was instrumental in the creation of the Amiga 1000 alongside RJ Mical, Jay Miner and Joe Decuir. The Amiga 1000 was first released in July 1985 and helped pave the way for a slew of Amiga computers that became the mainstay in the arts and video processing through the late Eighties and Nineties. Dave Needle was one of the main engineers working on the custom chips of the Amiga and was highly respected within his field.

The Amiga 1000 wasn't his only contribution to gaming, however, and he soon found himself involved with two other systems: Atari's Lynx and the 3DO. While working at Apple after leaving Amiga, Needle partnered with Dave Morse and RJ Mical to create the Handy handheld system for Epyx, which became the Atari Lynx after Epyx ran into financial problems. The console's design began in 1986 and was finished in 1987, but it wouldn't actually arrive in stores until 1989.

Needle followed the Lynx with the equally impressive 3DO, which was yet another collaboration with RJ Mical. The 32-bit console was deemed ahead of its time, beating the PlayStation to launch and boasting sensational graphics. Like the Lynx, it was a versatile system, but it couldn't compete against the power of Sony's PlayStation. RJ Mical received lots of support from fans on Facebook, telling everyone: "Such a great hole has been made here! He touched so many millions of us, and we can be grateful for that." He later revealed that Needle had passed away from natural causes. Trip Hawkins was also upset, telling us: "Dave was a brilliant chip designer and a fine fellow with a great sense of humour."



» [ZX Spectrum] Probe Software was responsible for a number of solid arcade ports.

✱ CONTENTS

READERS CELEBRATE DAVE NEEDLE

Forum members were upset to hear the sad news about Dave Needle's passing

Sad stuff, the Amiga was my first proper outlet for gaming and I have many great memories of that machine.
IronMaidenRule

The Amiga, Lynx and 3DO were all pretty visionary platforms, even if they didn't get the same sized audience. May he RIP.
outdated_gamer

RIP Dave. That's an impressive pedigree of machines.
Katzkatz

From the pics, he looks EXACTLY how I want a hardware engineer to look. Thanks for the Lynx, mate.
The Hardest Of All Freds

Sad news. RIP. Loved the Amiga. Lots of great times with that classic computer.
psj3809

RIP Dave. What a visionary you were.
Matt_B

May you rest in peace Dave, you did great things that will live on.
Hiro



» [CPC] Last issue, Nick Bruty recalled how excited Fergus was by *Trantor: The Last Stormtrooper.*



More sad news arrived the following week with the revelation that Fergus McGovern had passed away at the age of 50. McGovern was well-known in the UK games industry after setting Probe Software up in the early Eighties. Probe quickly built up a reputation for excellent ports that shipped in a timely manor and had links with David Perry, Nick Bruty and many others. It would go on to handle a number of high-profile ports in the Nineties, including *Mortal Kombat* and *Mortal Kombat II*, as well as film licences such as *Alien 3*, *Judge Dredd*, *Die Hard Trilogy* and *Alien Trilogy.*

Liked by seemingly everyone, McGovern would often feature in various Probe games as Easter Eggs, including the 'Fergality', and was well-respected within the industry. After selling Probe in 1995 for a reported $40, McGovern set up HotGen. HotGen worked with Jakks Pacific and created various *Plug It In & Play* TV games, as well as a selection of videogames, typically licences, something with McGovern had a great deal of expertise in. McGovern would also go on to became a board member of his beloved football club, Crystal Palace Football Club. In fact, it was the club itself that revealed the sad news in a statement on February 28.

The tributes for McGovern soon came thick and fast, most notably from David Perry who has had a long relationship with him, having worked with the Probe co-founder from a young age. Still upset over the news when we contacted him, he made his feeling known on his personal blog. "It's incredibly sad to hear about the passing of Fergus McGovern, he was only two years older than me! My first car was actually his own personal car; he gave it to me when I made a game for him. Fergus taught me to keep jumping hurdles no matter how challenging things would get. He believed we could do anything and we believed it too. He knew so many people in the industry, and it's interesting to see just how many had close personal relationships with him. I don't think I've ever seen such a strong reaction to someone passing in the videogame business."

Gary Bracey, who was working at Ocean when it was in competition with Probe for arcade conversions and film licences was equally saddened by the news, telling us the same thing he told *MCV*: "Fergus was remarkable in so many respects: as a businessman he was respected and admired by everyone who dealt with him – including myself; as a family man who was devoted to his children and as proud as any father can be; and finally, as I knew him, a friend whose appetite for life and a good time was as big as his heart."

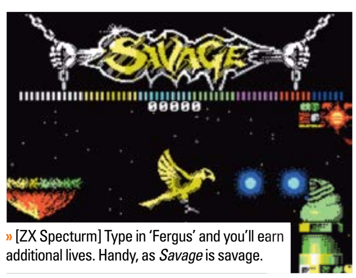
Both Dave Needle and Fergus McGovern made big impacts on the games industry, on both sides of the Atlantic. Our thoughts go out to all of their friends and families. *

"Dave was a brilliant chip designer and a fine fellow with a great sense of humor"

Trip Hawkins



» [Mega Drive] One of Probe's biggest and most important arcade conversions was easily *Mortal Kombat II.*



» [ZX Specturm] Type in 'Fergus' and you'll earn additional lives. Handy, as *Savage* is savage.



» [Amstrad] Probe also handled this non-arcade sequel to *OutRun, Out Run Europa.*

FERGUS MCGOVERN TRIBUTES

There were plenty who wanted to pay tribute to Fergus…

SIMON NICOL



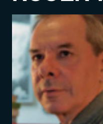
"Fergus had an extraordinary charisma, an eye for talent and an enthusiasm that was infectious. He was a key personality in the videogames industry and a good friend. He had a great influence on my life and on the people around him. I hope that one day those who knew him will be able to compile a collection of all the stories and mad times spent in the company of Fergus McGovern. The world is a lesser place without you."

SIMON BUTLER



"I remember Fergus from his many visits to Ocean and he was always friendly and very approachable. In later years I did freelance work for Probe and then HotGen and can only say that the industry has lost a gentleman. He was honest and sincere. What you saw was what you got. It's a poorer place without him."

ROGER KEAN



"At the time I was heavily involved in *Crash* and *Zzap!64*, Fergus was in the background as a developer for US Gold. The first time we actually met to shake hands was before the premiere screening of *From Bedrooms To Billions* at Earls Court. Fergus touched the lives of many people I did (and do) know well, and in everything I have heard he came across as a generous colleague and boss, and an innovator in the earliest days of videogaming."



» Dave Needle worked closely with RJ Mical on the Lynx.

THE SPECTRUM VEGA RETURNS AS A HANDHELD

Chris Smith and Paul Andrews explain why you should be excited about their new Spectrum

The Spectrum Vega earned plenty of fans upon release thanks to its library of 1,000 games (with the ability to add more via an SD card), an endorsement from Sir Clive Sinclair and the fact that it was an officially recognised Sinclair product. Its creators, Retro Computers Ltd, are back once again, this time with a portable version. Will it improve on the original by adding better ways to connect to new TVs a stronger library of games and that all-important keyboard support? We spoke to both creator, Chris Smith and Retro Computers' Paul Andrews to find out more about their new console.

Why have you decided to include a screen this time around?
Paul Andrews: Of course we have had many requests from users of the original Vega for things they would like to see. Obviously we cannot cover every request made, but we are trying to do as many of them as possible. A very common request was to produce a truly portable version of the Vega, so that is what we have done.
Chris Smith: Like most product evolution, it's iterative. Once customers got hold of the original Vega, the desire for a portable version was, in hindsight, inevitable. I have massively reworked the Vega hardware and software to make this possible, and having Rick Dickinson on board to design the look of the Vega+ makes it a true evolution of both the Vega and the original ZX Spectrum itself.

Will it utilise a touchscreen, as that would make it easier to play the text adventures.
PA: We are not planning to make the Vega+ a touchscreen, but we are looking at other ways to make playing text adventures easier.

What improvements are you making compared to the original Vega?
CS: The main improvement for most people is, of course, the fact you can do your retro gaming on the move! There are lots of subtle, but important, changes, and I am giving the whole user interface a makeover, to really blend with Rick's design, and adding many user-requested improvements. Of course, the Vega+ has double the ZX heritage with Rick's involvement.

How long has it taken Rick Dickinson to come up with the design?
CS: It took a while. Where the original Vega was a homage to the look of the original rubber-keyed ZX Spectrum, we wanted the Vega+ to reflect what Sinclair might have produced if they had created a portable machine in the Eighties, but at the same time meeting today's user expectations.

The Vega's output suffered on new HDTVs and didn't work on HDMI-only TVs. Will you be doing anything to rectify this?
PA: The customer drive behind the Vega+ was for a portable console, which





» [ZX Spectrum] *Jet Set Willy* is currently with Elite, so the classic Spectrum game is unlikely to hit the Vega+.



» The Vega+ has once again been designed by Rick Dickinson, the Spectrum's original creator.



» [ZX Spectrum] A deal with Gremlin Graphics mean great games like *Wanted: Monty Mole* were on the original Vega.

can be used on the go, anywhere. The LCD image is sharp and retro! Chris continued the option of TV connectivity to give the customer complete choice, however it is primarily aimed at the portable market, and we don't expect it to be used this way often.

CS: On the subject of quality, the Vega TV signal is excellent, far better than most machines of the Eighties and Nineties, and is, of course, low resolution. Any modern TV display fuzzyness is due to the amount of upscaling the TV has to perform on such a retro-resolution picture, and some TVs are much better than others. Plug it into a non-HDTV or CRT, or through a quality upscaler, and the picture is superb!

Backers are already asking for a much-needed keyboard port. Will this be added this time? Why not team up with Elite?

PA: We are working really hard to incorporate keyboard connectivity. We recognise its importance to some customers, and hope to have some good news on this soon. Elite is an entirely different company to Retro Computers Ltd, and we are not connected with them at all, so this is not a direct option.

Why were so many hard to play text adventures included with the last Vega?

PA: We pledged to have 1000 games in the Vega, and we did. Many people love adventure games, and so we decided to please as many as possible by including them.

CS: The novel virtual keyboard is akin to Marmite – it's loved by some, but not by all.

Will the 1000 included games be the same as before?

PA: No, not necessarily, we might change some of the games, we will confirm on this as soon as we can.

If the games are to be different will you be making more of an effort to include bigger companies such as Ocean, Epyx and Codemasters?

CS: We made a massive effort to license 1,000 of the best games we could for the original Vega, and went for the big guns. As I am sure you know, many titles have been passed from company to company over the years, and many companies do not have a 100 per cent accurate record of what they do now own. Also, even when we were able to track down a licence holder, they sometimes didn't want to license their older retro titles, sadly. Titles with film licenses are pretty much a no-no as well, but we do have many great titles on both machines, some not previously available elsewhere.

Are developers still going to be receiving royalties?

PA: Yes. Contributors have, and will continue to receive royalties, as appropriate, across both consoles.

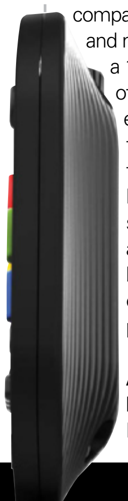


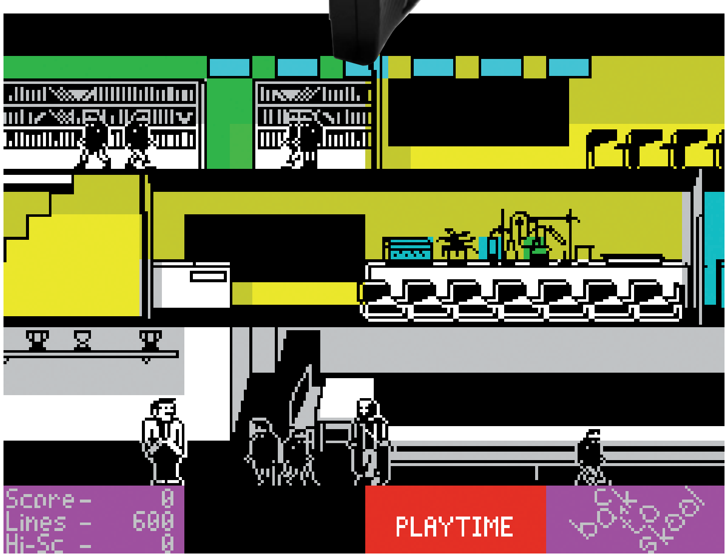
» There's still no HDMI output, but we'll admit that portability is a big boon for the Vega +.

> "The novel virtual keyboard is akin to Marmite – it's loved by some, but not by all"
> Chris Smith

Why is there no mention of charity payments this time around, as that was a big push of the original Vega?

PA: We have made, and will continue to make donations to the charity. For various legal and commercial reasons we cannot be more specific on which companies and individuals have asked us to pay their contributions to charity, including our own contributions, but we can assure you they have and will continue to be made to the charity as appropriate to both consoles. *

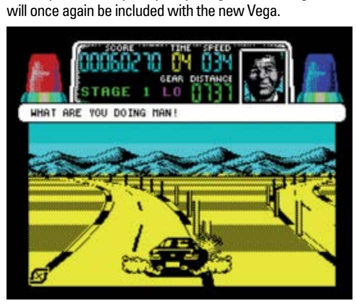




» [ZX Spectrum] While the inclusion of games like *Back To Skool* was great, it highlighted that the Vega needed a keyboard.



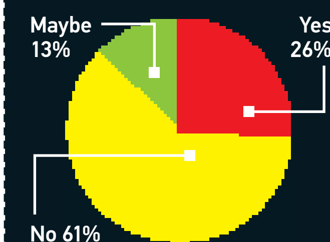
» [ZX Spectrum] Hopefully, surprise games like *Knight Lore* will once again be included with the new Vega.



» [ZX Spectrum] It's highly unlikely that arcade classics, such as *Chase HQ*, will be appearing on the Vega+.

READER'S WEIGH IN ON THE VEGA+

Would You Buy A Spectrum Vega+?



I have no use for mobile gaming. If I want to play a Spectrum game I'll play it on my Spectrum, or PC emulator. Even if I did want to play on the go I'd struggle to play without a joystick.
necronom

To make it portable, with TV plug-in capability, and a choice of colours, especially for backers – I had to go for that.
joefish

It looks pretty and it warms my cockles to see a pseudo-official Sinclair product out there, but it's at least ten years too late and £60 too dear for what it actually does.
the_hawk

It came close, but 'Ultimate'ly it's a no. Lack of keyboard again is my only real issue, until that's resolved I'll stick to ZXDS.
Antiriad2097



Here's my bio… Paul Davies

In 1992 I started out on *Mean Machines Sega* and *Nintendo Magazine System*. In 1995 I became editor of *C&VG*. I led the *C&VG* website from 1998 until Christmas 2000, then I left journalism to be concept design manager at Criterion Games. I returned to journalism in 2002 and from 2005 I've been running my own company, Unlikely Hero.

The 25 Year Fail

Street Fighter II has forever held a magnifying glass to my gaming soul. It illustrates all that I've ever loved about games, but it also reveals a lifelong struggle to untangle from the ropes.

I distinctly remember looking over the button sequence required to activate Ryu's fireball (Hadoken) for the very first time. Down, diagonal, forward + punch. So, like, all at once or…?

My buddy and I considered ourselves to be pretty great at gaming by the summer of 1992. We'd conquered *Ghouls 'N Ghosts*, beaten *Thunder Force III* on Mania and busted the chops of every bad guy in *Streets Of Rage* a hundred times at least. There was nothing we couldn't do with the Mega Drive controller and it's three buttons, or even the Super Famicom thing with four buttons and those ones at the top that you didn't really need most of the time.

So, then, *Street Fighter II*. It had to be bought, purely because *C&VG* and *Mean Machines* were all over the coin-op, and a guy in my art class had played it and said it was awesome. He described it to me, and it didn't make any sense at all. So I asked him about the 'warping backgrounds' that *EGM* – or might've been *GamePro* – had raved about. He walked away.

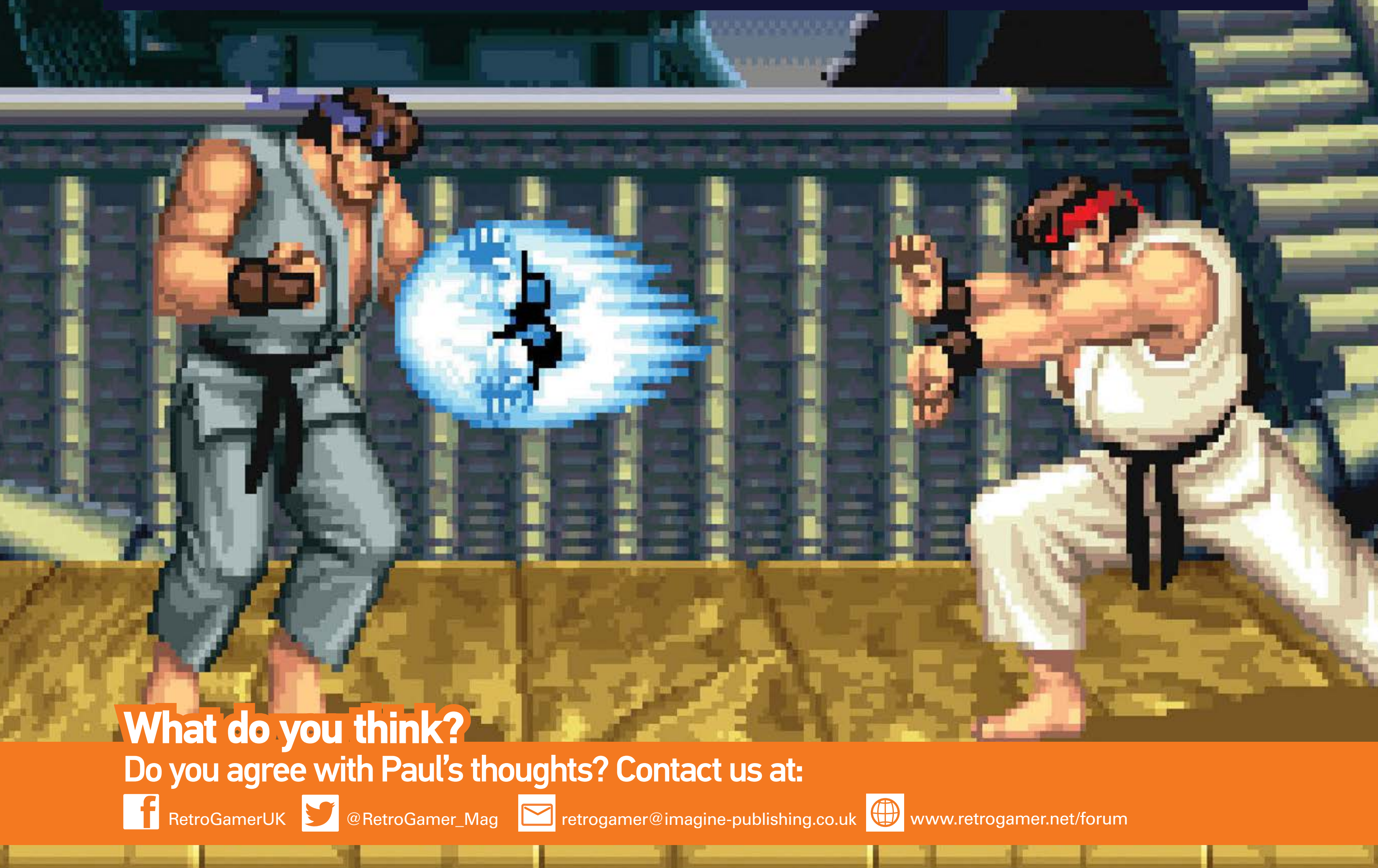
Nevertheless, still clueless as to why this was happening like it or not, I sent Console Concepts a cheque for £100 and prayed that the box wouldn't get squashed in the post.

Back to my original point. It took me a while to even gather the courage to play *Street Fighter II*. When something is such a big deal, it always equates to difficult in my mind. But the complexity of *Street Fighter II* – unlike *Yie Ar Kung-Fu* or *Budokan* – was not just me feeling intimidated, the mechanics of this game were on another plane. To be fair, it didn't take my buddy and I all that long to understand the fireball thing, but taking our sorry Ryu and Ken shenanigans down to the Tasty Bite cafe in town just resulted in a whooping from a Blanka player who did nothing much more than barrel roll and backflip.

Another major character flaw that I have since paid closer attention to in life after *Street Fighter II* is a tendency to try and learn by osmosis. Like, if I spend long enough in the company of somebody or something awesome I might become awesome too. No. To play *Street Fighter II* properly, you need to learn how to learn. Which means breaking everything single thing down, move by move, frame by frame. That last part I still get into a cold sweat about.

I mean, you can't beat the 'enemies' while waiting for your character to flash white after losing a life and then bashing the kill button before the invincibility effect wears off. You do need to learn how to outsmart the AI and not just smack Heavy Punch. You do need to resist the urge to jump at human opponents in the hope that they will never see that coming.

We are all still learning to play *Street Fighter II*, the best players are still finding ways to challenge each other. And when you look at the legacy, what it inspired, it's incredible. *



What do you think?

Do you agree with Paul's thoughts? Contact us at:

RetroGamerUK · @RetroGamer_Mag · retrogamer@imagine-publishing.co.uk · www.retrogamer.net/forum



RÉPUBLIQUE
KEEP HOPE ALIVE
COMING 25.03.2016 TO PLAYSTATION®4
16
www.pegi.info
PS4™
© 2016 Camouflaj, LLC © GungHo Online Entertainment, Inc. All Rights Reserved. Licensed to and published by NIS America, Inc.
"PS", "PlayStation" are registered trademarks and "PS4" is a trademark of Sony Computer Entertainment Inc.
Camouflaj
GungHo
NIS America

Collector's corner



JEWEL IN THE CROWN

THAT PIECE YOU CAN'T BE WITHOUT

MEGAMAN X

■ "My friends Gemma and Alex from Level Up Games in Canterbury [and I] were talking on Facebook before Christmas about rare games and how expensive they'd become. We'd seen this one priced as high as $500. Two days later I was brushing my teeth getting ready for work and the postman turned up with a package. What lay inside was *Megaman X* and I started to well up! I felt so overjoyed with joy and gratitude to Gemma and Alex. I'll never forget it."

PAID: £75

SECRET OF EVERMORE (SNES)

"It's missing the map but my heart skipped a beat when I saw it, because I've never seen a boxed PAL copy. Those moments are my favourite when you do a little dance in your head but try to keep your cool on the outside."

PAID: £80

DOUBLE DUNK, PACMAN AND DARK CHAMBERS (ATARI 2600)

"I own three factory-sealed Atari games and they are from my original collection, so they are highly sentimental to me. A friend gave them to me."

PAID: £0

CONKER'S BAD FUR DAY (N64)

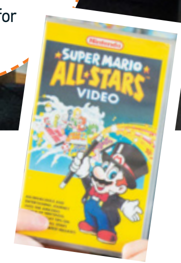
"Someone sent me this for free. I was blown away – the generosity of the community is amazing at times!"

PAID: £0

SUPER MARIO ALL-STARS TIPS VHS VIDEO

"I found this at the Super Games Fair. I remember seeing this in my Dad's bag and I [then] knew I was going to be getting a SNES for Christmas."

PAID: £6



BIO

NAME: Gemma Perkins

ESTIMATED VALUE: £10,000+

FAVOURITE CONSOLES: SNES

FAVOURITE GAME: *Super Mario Kart (SNES)*

Collector's corner

Readers take us through the retro keyhole

SNES fanatic Gemma has felt the pain that many collectors will identify with. Having amassed a significant collection by 2011, circumstances compelled her to sell it all off. "I met my future wife, Jess, via the YouTube retro gaming community and I decided a change was in order for me to spend some time with her," says Gemma, who goes by the handle of thegebs24 on YouTube. Unfortunately, Jess lived in America, and Gemma needed funds to make the trip. "I didn't mind it at the time, but when I returned to the UK, I really felt the blow of not having the collection," she winces. "It had been a huge part of my identity; not just from a collection point of view, but also through YouTube, my blog and social media. It was Jess who persuaded me to start collecting again."

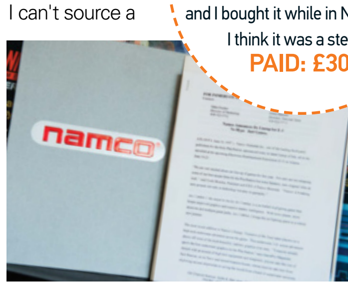
Gemma's first encounter with gaming was *Horace Goes Skiing* on the ZX Spectrum, yet it's the SNES she has the most affection for. She's undaunted by the burgeoning market for the console. "I never feel overawed as I believe it's a buyer's market and I use that philosophy when buying. I'd spend £1000 on a game if I wanted it that bad, and if I had the income and opportunity." Gemma splits her collecting between her PAL, and buys NTSC whenever required to plug the gaps. "When I can't source a PAL game easily," she explains, "I have people in the US who can help me out. It's like having the best of both worlds."

Despite declaring she'd collect with or without YouTube, Gemma admits her channel plays a big part in her hobby. "YouTube adds a slice of excitement to my collecting. Every time I'm at an expo or gaming market, I'm thinking about how excited I am to show my subscribers what I've bought and that provides a pivotal way to connect with other gamers from all over the world. It's another way to 'play the game' in the comments section of a pick-ups video. Everybody clubs together to share their memories. I love it!" *

NAMCO PRESS KIT (FROM E3 1997)

"It includes a poster from a cancelled game, *Pacman Ghosts*, and I bought it while in New York. I think it was a steal!"

PAID: £30



You can follow Gemma's collection exploits at youtube.com/thegebs24 and at juicygamereviews.com. Many thanks to JP Professional Photography for use of images.

DISCUSS

Do you collect import games?

Forum
www.retrogamer.net/forum

■ Yes. Not only are most of my consoles imported as well, but many games were either not released in Europe, or inferior due to no optimisation.
Mayhem

■ I prefer to experience my games as would have at the time, but there has been the odd title unreleased here that I've picked up.
Antiriad2097

■ Yes! Since the Mega Drive, first games I ordered were Japanese *Devil Hunter Yoko* and *Twinkle Tale* from KT Konsoles in Scotland. Amazing covers and manuals on the games and I've imported ever since.
Shinobi

■ Only ones I've ever imported have been for the GameCube, for the exclusives. Before that I bought PAL.
dste

■ No. It's never been a 'thing', my machines have been almost exclusively computers, and everything was either made here, or was sold here if made elsewhere.
necronom

Twitter
Twitter.com/@RetroGamer_mag

■ I'm from the UK, but don't live there anymore, so I guess all my old games I brought with me are imports!
@stulec52

■ I collect Super Famicom games. I prefer the artwork on the older games and they are typically cheaper than the US releases.
@daswhalebeard

■ I used to do it because sometimes there were really cool games that weren't available or too expensive in the UK.
@gamepopper

■ Only If the PAL version is too expensive or if the game was never released in PAL regions. Importing opens up a whole new world of gaming!
@potty_boy

■ I used to import back when CeX sold them. I am currently going for WonderSwan stuff so I guess, yeah.
@kstallett

■ It depends, sometimes there are regional differences and/or nicer box art with the import version of the game.
@MaireadRalph

Facebook
facebook.com/RetroGamerUK

■ Region locking normally stops me but I've got a few Mega Drive and Game Boy titles. Damn you region locking!
Mark Hogg

■ There are so many games unavailable to the Western market that imports are the only way to go. A lot of underrated gems exist out here.
Simon Che Rodriguez

■ I would rather buy a repro-cart of a fan-translation than an original cartridge of a game I cannot read.
Ricky Healy

■ As a Saturn and Dreamcast collector, you HAD to import games or you were stuck with a limited library and missed out on essential titles.
Paul Dent

■ No, but I typically use emulation to play other region titles.
Will Meek

■ My collection is 100 per cent Japanese. I find the box art interesting, even box shape and size like the tiny Famicom boxes. The multicoloured carts are also appealing.
Emma Brotherton



What We Think

■ My collection knows no borders, and Darran's in the same boat. Quite apart from the poor PAL optimisation on most Eighties and Nineties console games, there are too many classics that didn't reach our shores – and the convertors and mods required to play them are a small price to pay.



Shark Protectors

Marcel Donker on his great way of protecting your precious retro collection



» Shark Protectors currently create cases for US and Pal SNES games, NES games and Game Boy, Game Boy Color and Game Boy Advance.

Why did you start Shark Protectors up?
Being serious game collectors ourselves, we were not satisfied with the display cases that were currently available on the market; they either looked very cheap, felt too thin, didn't fit perfectly, kept opening on the sides or, more importantly, didn't add that special touch to our collection. As a result, we created our own solution that protects and displays our games best: the Shark Protectors!

What systems do you cover and do you have plans for more?
We started with cases in three sizes that fit the NES, Super Nintendo, N64, Game Boy, Game Boy Color & Game Boy Advance. We will be expanding our range in the near future. We have some wild ideas and we also get good suggestions from other collectors through social media. It's great to see the reactions so far once people have seen the Shark Protectors.

What makes your product different from others on the market?
Quality. We believe Shark Protectors will set the highest standard for real collectors. Shark Protectors are the new snug-fit hard display cases, made from the highest quality PET plastic (400 micron), fitted with extra locks and have a crystal clear look and an official clear Shark Protectors logo on the back of the display case. The Shark Protectors are by far the highest quality cases in the market and it protects your valuable games just like a hard case, you can even drop your game and the extra thick corners will prevent your game from being damaged.



» Games such as *Ocarina Of Time* are getting rarer meaning you'll want to keep them in the best condition.

Why do you think case protectors are becoming so popular?
Because retro gaming is big. As retro gamers and collectors, we have seen the market expand over the past few years. More and more people collect seriously and some game prices have skyrocketed. Like with most collections you want to show your prize pieces, but also want to store them the best way possible and that's where Shark Protectors come in. We believe some games in your collection deserve that special touch.



» Durable cases mean you can even stack your games on top of one another, handy when the boxes have worn.

Do you include the small plastic stand used to display the cases in your video?
That's a good question we've been getting a lot since the release of our Youtube video. We will make these stands available through our resellers worldwide, as we believe it adds to the overall display feature.

Do you think releasing games in perishable boxes is one of the reasons Nintendo products are so expensive now?
I think making good games is the first reason, but yes, complete-in-box Nintendo products are really pricey since a lot of those cardboard packages did not survive the last few decades. You more often see a Sega game in complete condition, since their packaging was already a good game case to start with.

You currently sell Shark Protectors in nine different countries. Any plan to add more?
Yes, we definitely like to expand and be available in all countries through one of our two official resellers. That way we can keep the prices low and save collectors shipping costs.

Are readers able to get discounts when buying in bulk?
Yes indeed, the price for a Shark Protector gets cheaper when you order more of them. Just check for the closest reseller near you through our site shark-protectors.com. ✱



WIN YOUR OWN SHARK PROTECTORS!

We have four cases of 25 Shark Protectors to give away to four lucky winners. Send us a picture of your collection to retrogamer@imagine-publishing.co.uk stating what type of box you would prefer and we'll choose our favourites.

TERMS AND CONDITIONS The closing date for entries is 23 March 2016. Please be aware that answers must be submitted to the above email address only. This competition is open to residents of the United Kingdom and Ireland only. Imagine Publishing has the right to substitute the prize for a similar item of equal or higher value. Employees of Imagine Publishing (including freelancers), their relatives or any agents are not eligible to enter. The Editor's decision is final and no correspondence will be entered into. Prizes cannot be exchanged for cash. Full terms and conditions are available upon request. From time to time, Imagine Publishing or its agents may send you related material or special offers. If you do not want to receive this, please state it clearly on your competition entry.

SHARK Protectors

The SHARK Protectors CASE

THE HIGHEST QUALITY & BEST FIT DISPLAY CASE IN THE WORLD!



The CLEAREST, HARDEST PET MATERIAL available: 400 MICRON Just like a HARD CASE!

3 sizes for (pal/ntsc)
GAMEBOY / COLOR / ADVANCE
NES
SNES / N64



EXTRA STRONG corners & LOCK SECURITY

DISPLAY and PROTECT your favourite games

SHARK PROTECTORS: WE MAKE A GOOD CASE!
www.shark-protectors.com

BACK TO THE NINETIES



[PC] Build yourself a pant-flappingly brilliant rollercoaster, design your park and amenities and ensure everything runs smoothly. Easy!

THE LATEST NEWS FROM APRIL 1999

APRIL 1999 – Pokémon Stadium is filled to capacity, Delta feels the Force, Gex goes undercover, it's a rollercoaster ride for MicroProse, ridges are raced and Roland (almost) meets Willy. Richard Burton heads for the banyan tree…



Out this month for the Nintendo 64 was *Pokémon Stadium*. It featured all 151 Pokémon and allowed you to import Pokémon from your Game Boy via the Transfer Pak peripheral enabling you to see the formerly monochromatic battles played out in colourful 3D.

While some might say that *Pokémon Stadium* is just a glorified rendition of the tedious battles you had to endure on the Game Boy to find new Pokémon, others might point out that there's also a variety of mini-games and battle modes giving *Pokémon Stadium* some semblance of a game with longevity.

Unsurprisingly, this was released in Japan first with the European version ambling its way to market a year later. Surprisingly, this wasn't the first *Pokémon Stadium* game. Released exclusively in Japan in August 1998, also on the Nintendo 64, was *Pocket Monster Stadium* although that only featured 42 playable Pokémon.

For battling with a less cutesy feel, you might want to dump your Charizard and pick up a bazooka as *Delta Force*, a tactical first-person shooter developed by NovaLogic and published by Electronic Arts arrived on PC in Europe.

You play a special forces commando who takes part in 40 different missions, each with its own specific task. It could be the assassination of a target or destroying an enemy encampment in single-player mission mode. The online multiplayer mode has the usual battles and deathmatches intermingled with capture the flag-styled tasks, all of which are good playable fun.

Delta Force may not be as realistic as some games of this ilk, instead relying on a user-friendly blend of strategy, tactical nous and 3D shooting. While the graphics may not blow you away, the gameplay certainly would.

Fancy a team-based multiplayer first-person shooter? Well, look no further than Valve's newest release, *Team Fortress Classic* on PC. The gameplay pits two teams against each other in typical FPS scenarios, such as yet more capture the flag missions, territory control and protecting the VIP.

You can have 32 players online simultaneously split between the red and blue teams and these players can choose which character class they will be in. There are nine different classes including Sniper, Pyro, Spy or Engineer each having their distinct pros, cons and weaponry, so teamwork is a necessity for you to succeed.

For PlayStation gamers there was a familiar face returning in the form of Gex. If the previous two platform games had left you gagging for more of the secret agent gecko then you wouldn't be let down by *Gex 3: Deep Cover Gecko* published by Eidos Interactice.

It was more of the same platform run-and-jumping shenanigans with the wise cracking Gex superbly voiced by Danny John-Jules (Cat in *Red Dwarf*). The gameplay sees you attempting to rescue Agent Xtra who has been kidnapped. You must plough your way through four worlds covering multiple levels and a variety of bosses all parodying different aspects of television culture as Gex transports to the Media Dimension to begin his mission.

Solid gameplay, super graphics including the beautifully constructed



[PlayStation] Gex is back for more platform mayhem and is voiced by Danny John-Jules of *Red Dwarf* fame.



[PC] An FPS designed for two teams containing a variety of characters. A bit like paintballing but without the pain.

THIS MONTH IN…

N64 GAMER

The Nintendo 64 magazine examined the DexDrive, a console memory card reader for the N64 (and also available for PlayStation). Selling for around $50 it connected to your PC allowing you to back up save data, which could be shared with others. It was an economical way to store your precious game saves.



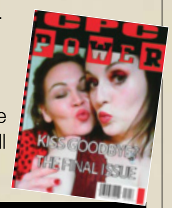
COMPUTER & VIDEOGAMES

C&VG had a special interview with the creators of *Metal Gear Solid* for the PlayStation. The team spoke to nine people ranging from artists and 3D modellers to musicians and various directors. Although they only revealed bite-sized insights into their jobs, it was a fascinating read.



CPC POWER

The Eurocentric *CPC Power* released its final issue after months of declining sales. Now more fanzine than magazine, it'd shrunk to A5 and the content was wafer thin. One point of interest was an interview with the founders of *WACCI*, another fanzine stalwart, which was still plugging away.



3D world and great voice acting made *Gex 3* a platform game you should really hunt out.

MicroProse would have you building and constructing rather than destroying with the release of *RollerCoaster Tycoon* for PC. As the title suggests you must develop, build and maintain your own amusement park with varied and interesting rides within a robust infrastructure as well as plenty of ice-cream stands, staff and litter bins.

RollerCoaster Tycoon is an isometric construction, management and amusement park simulation which is as in-depth and involved as you could possibly imagine with every little aspect of park life covered. But it's not just a sandbox construction simulation, there are also 22 scenarios which can be played although only five are initially open. Completing a scenario will unlock more with many based on real-life amusement parks.

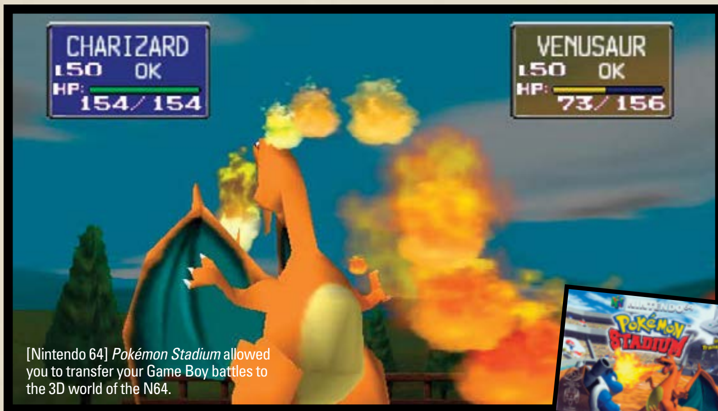
If you're looking for a different kind of thrill ride, the latest release in Namco's *Ridge Racer* series could be just the ticket. *Ridge Racer Type 4* for the PlayStation was the fourth game in the series and continued the fast-paced arcade racing theme of its predecessors.

The split-screen two-player option remained as did the Time Attack mode. There is also a Grand Prix mode which stretches over seven races.

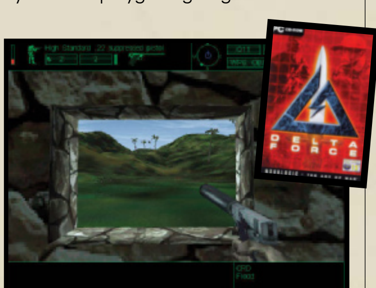
The most noticeable advancement in the franchise was the graphics which now employed the Gouraud shading system on polygons giving a smoother more natural-looking reflections and lighting. Among the new features was a Decal Edit section that would allow you to design your own logo for your car and a superbly implemented blur effect used in slow motion replays. The graphics were outstanding as was a soundtrack. One niggle was the game seemed to rely on the power slide technique for cornering a little too much.

New coin-op cabinets were few and far between with the only notable release this month being Tecmo's *Gallop Racer 3*. The horse racing series was huge in Japan but received lukewarm responses elsewhere. That didn't stop Tecmo from releasing more *Gallop Racer* games though.

Occasionally mooted in CPC circles was *Jet Set Roland* for the Amstrad. The independently developed game would've seen Roland placed into Miner Willy's mansion and tasked with the same clean-up mission as its owner. Unfortunately after legal pompousness and much cease and desisting, *Jet Set Roland* was shelved with the game almost finished. *



[Nintendo 64] *Pokémon Stadium* allowed you to transfer your Game Boy battles to the 3D world of the N64.



[PC] *Delta Force* arrives with a reputation for super gameplay and multiplayer options. It didn't disappoint.

CHARTS

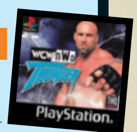
APRIL 1999

NINTENDO 64



1. Star Wars: Rogue Squadron (Nintendo)
2. The Legend Of Zelda: Ocarina Of Time (Nintendo)
3. Wipeout 64 (Psygnosis)
4. WCW Vs nWo: Revenge (THQ)
5. Turok 2 (Acclaim)

PLAYSTATION



1. WCW/nWo Thunder (THQ)
2. A Bug's Life (Sony)
3. Premier Manager '99 (Gremlin)
4. FIFA 99 (Electronic Arts)
5. Brian Lara Cricket 99 (Codemasters)

PC



1. Sid Meier's Alpha Centauri (Electronic Arts)
2. Sim City 3000 (Electronic Arts)
3. Delta Force (NovaLogic)
4. Baldur's Gate (Interplay)
5. Resident Evil 2 (Virgin Interactive)

MUSIC



1. Perfect Moment (Martine McCutcheon)
2. Flat Beat (Mr Oizo)
3. My Name Is (Eminem)
4. Turn Around (Phats & Small)
5. Thank Abba For The Music (Steps, Tina Cousins, Cleopatra, B*Witched, & Billie)

NEWS APRIL 1999

10 April saw the death of American actress Jean Vander Pyl. The name may not be immediately recognisable but her voice was as she was best remembered as the voice of Wilma Flintstone, she also lent her voice to many other Hanna-Barbera cartoons.

23 April saw the world premiere of the movie *Pushing Tin*. Starring Billy Bob Thornton and John Cusack, it tells the story of two air traffic controllers both wanting to be top dog. Along the way they both cheat each other's wives with the fallout resulting in serious consequences and a difficult reconciliation between the two.

26 April saw the murder of television presenter and newsreader Jill Dando. The then-*Crimewatch* presenter was shot once in the head on the doorstep of her home in Fulham, London. A local man, Barry George, was arrested, charged and found guilty of the murder but acquitted nine years later after a lengthy appeal. The crime still remains unsolved to this day.

29 April saw the debut of the television series *Grand Designs* on Channel 4. Hosted by Kevin McCloud it features building projects which frequently sway towards the architecturally strange and bizarre but often highlighting creativity and sustainability in house design.



Finally, the diverse cross section of the music album releases this month included *Eye II Eye* (Scorpions), *Echo* (Tom Petty & The Heartbreakers), *We Kill Everything* (Gwar), *15 Minutes* (Nik Kershaw) and *Holy Roller* (The Reverend Horton Heat).

Timeslip

"IT FEELS LIKE TIME IS PASSING SO QUICKLY. DAMN YOU, EINSTEIN!"

#98

» ENGLISH SOFTWARE COMPANY » COMMODORE 16/+4 » 1985

There's a time disturbance that's been traced to a distant planet with three time zones, each with 12 time orbs. Your mission is to destroy all 36 orbs and synchronise time in all three zones, or else!

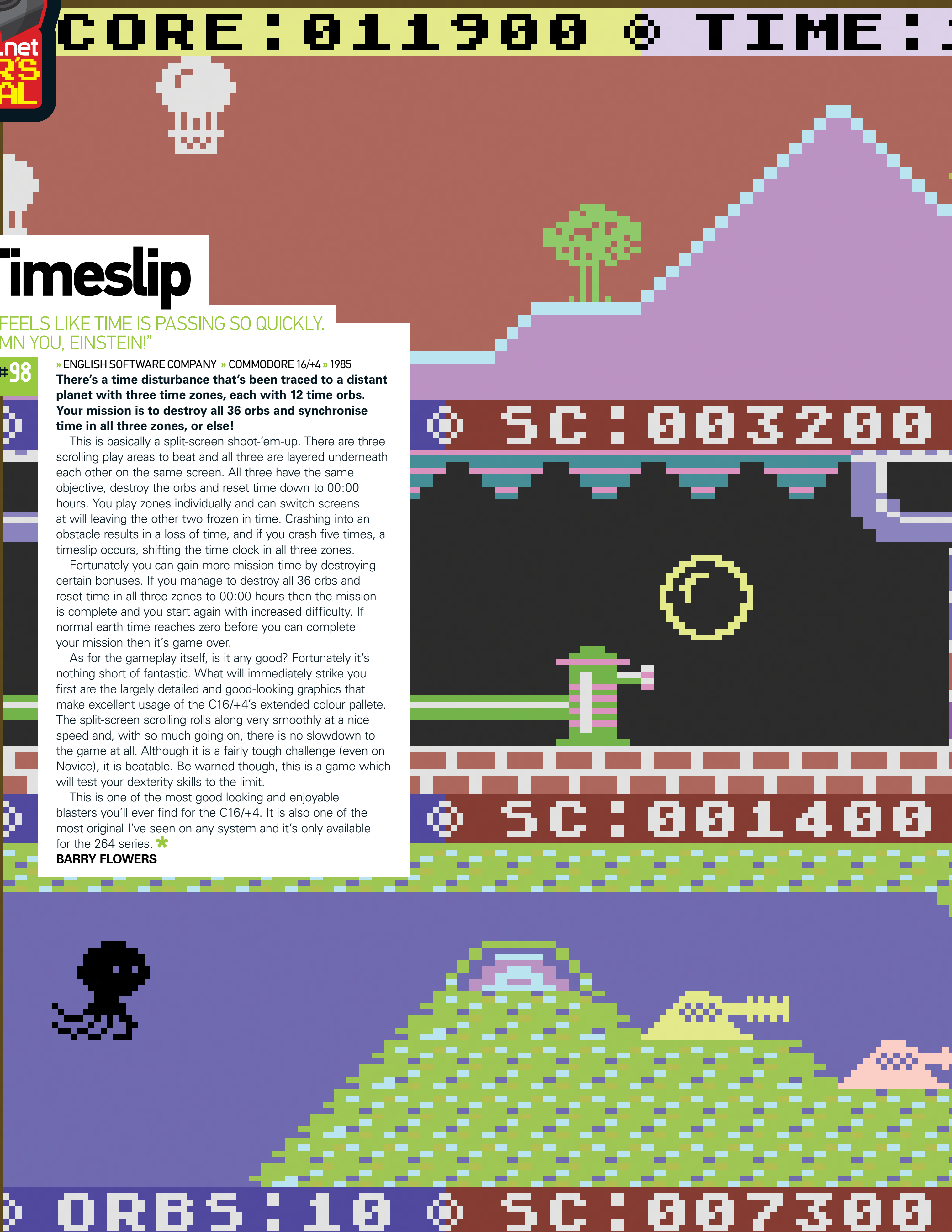
This is basically a split-screen shoot-'em-up. There are three scrolling play areas to beat and all three are layered underneath each other on the same screen. All three have the same objective, destroy the orbs and reset time down to 00:00 hours. You play zones individually and can switch screens at will leaving the other two frozen in time. Crashing into an obstacle results in a loss of time, and if you crash five times, a timeslip occurs, shifting the time clock in all three zones.

Fortunately you can gain more mission time by destroying certain bonuses. If you manage to destroy all 36 orbs and reset time in all three zones to 00:00 hours then the mission is complete and you start again with increased difficulty. If normal earth time reaches zero before you can complete your mission then it's game over.

As for the gameplay itself, is it any good? Fortunately it's nothing short of fantastic. What will immediately strike you first are the largely detailed and good-looking graphics that make excellent usage of the C16/+4's extended colour pallete. The split-screen scrolling rolls along very smoothly at a nice speed and, with so much going on, there is no slowdown to the game at all. Although it is a fairly tough challenge (even on Novice), it is beatable. Be warned though, this is a game which will test your dexterity skills to the limit.

This is one of the most good looking and enjoyable blasters you'll ever find for the C16/+4. It is also one of the most original I've seen on any system and it's only available for the 264 series. *

BARRY FLOWERS




17-48
ORBS:32
Z:2
ZT:01-00
FROZEN
ZT:07-44
LOCKED
ZT:11-00
FROZEN

SEGA'S BIG GAMBLE

Extending the life of the Mega Drive might have seemed like a safe bet, but Sega lost consumer trust trying it. Nick Thorpe asks how a dead cert turned out so wrong…



Talk to anybody about console add-ons today, and they'll tell you one thing: they just don't work. Microsoft's much-touted Kinect is dead in the water after an initial wave of popularity, the PlayStation Move is in the same boat and the less said about the 64DD, the better. But of all the add-on devices throughout gaming history, two come in for high criticism above all others: Sega's Mega-CD and Mega Drive 32X.

If the conventional wisdom is that console upgrades don't work, these are the devices that granted us that wisdom. The Mega-CD sold 2.24 million units internationally over a four year lifespan, reaching only a small percentage of the world's 30 million Mega Drive owners, and added 210 games to the console's library. Far fewer 32X units were sold, and the system was discontinued after less than 18 months on the market with just 40 games released. Neither machine was a commercial success. Players have often questioned how and why the company botched two hardware releases in quick succession, and to find the answer it's necessary to cast your mind back to the early Nineties.

25 years ago, there was no widespread belief that console upgrades were a bad idea. In fact, the prevailing opinion was quite the opposite. The Japanese console manufacturers touted all manner of upgrade options for their machines, usually copying one another – when NEC announced a keyboard and a PC interface for the PC Engine, Sega naturally responded with a keyboard, a modem and a floppy disk drive for the Mega Drive. While very ▶



» [Mega-CD] Thanks to colour limitations, an ugly grainy look characterised most Mega-CD FMV games.

few of these devices ever made it to market, each manufacturer had some experience by 1991. Nintendo had released the Famicom Disk System, a reasonably popular interface for low-cost rewriteable disks. Sega had produced the likes of the Mark III FM Unit, a sound-boosting add-on, and the Mega Drive Power Base Converter which added backwards compatibility.

However, the goal everybody had their eye on was CD-ROM. More accurately, Sega and Nintendo had their eyes on CD-ROM because NEC was already there, having released a CD-ROM drive for its PC Engine console in 1988. Though it had been slow to gain momentum, by 1991 CD releases were starting to outnumber those on the PC Engine's HuCard format. For its part, Nintendo had started work on a CD-ROM upgrade in partnership with Sony long before the SNES had been released. If Sega didn't pursue such a device, it would invite criticism from observers and its investors.

What's more, Sega's management was convinced that videogames would soon move away from ROM cartridges. "We were pushing for CD-ROM because we knew that eventually we were going to have to program for it, and nobody knew how to," says Tom Kalinske, CEO of Sega Of America during the Sega CD's lifetime. "We had grandiose visions of what it was going to mean, I remember we were talking about being able to incorporate movie graphics with rock and roll concert sound, as well as 3D animation – this was going to be a fantastic thing. That was the dream."



» [Mega-CD] Core Design did excellent work, pushing the Mega-CD's scaling capabilities to the limit.

DID YOU KNOW?

■ According to Core Design, a whopping 80 per cent of UK Mega-CD owners bought *Thunderhawk*!

If that sounds ambitious, it's because it was. Sega's vision was more ambitious than that of NEC, at the very least. The PC Engine's CD-ROM peripheral added a new storage medium and an additional 64KB RAM (256KB in the 1991 Super CD-ROM model). The Mega-CD did a whole lot more. A second Motorola 68000 CPU, clocked at 12.5 MHz, was added to the 7.67 MHz one already present in the Mega Drive. The system also received a RAM upgrade, with an additional 512KB main RAM, plus 256KB for video and 64KB for sound samples.

That wasn't all, though. A custom graphics chip and a Ricoh RF5C164 sound chip were also added to the system. In practice, this meant that the system could scale and rotate sprites – rather like the much-touted Mode 7 feature on the SNES, but with the ability to handle more objects simultaneously. The machine also gained the ability to play full-motion video clips. In terms of audio, the most obvious difference was that the machine could stream high quality audio from the CD, but the Mega-CD also provided a number of additional sound channels and improved sample playback for chip-based audio.

Mega-CD games could, in theory, outperform those on the stock Mega Drive and initial excitement was high as a result. The Mega-CD initially launched in Japan in



» The 32X cartridge slot is slightly wider than a regular Mega Drive cartridge slot, making it useful as a makeshift import converter.

KEY COMPANIES

The larger third-party developers and publishers stayed away from the Mega Drive's add-ons, allowing less well-known companies to achieve prominence…

CORE DESIGN

SIGNATURE GAME: Thunderhawk

■ The UK studio is one of the most technically proficient developers to have worked on the Mega-CD, pulling off impressive games such as *Battlecorps* and *SoulStar* which made heavy use of sprite scaling effects to create 3D environments. However, Thunderhawk was easily its biggest commercial hit on the system.



DIGITAL PICTURES

SIGNATURE GAME: Night Trap

■ The most enthusiastic proponent of FMV-based games did a huge part to shape the image of the Mega-CD with its software, with *Sewer Shark* forming part of a popular bundle and *Night Trap* generating major controversy. DP is notable as the only third-party developer to have supported the 32X with disc-based software.



WOLF TEAM

SIGNATURE GAME: Road Avenger

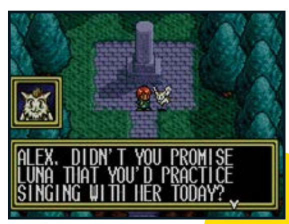
■ Wolf Team was prolific on the Mega-CD, releasing 12 games in the machine's first two years. Many players will have encountered its games at some point, as *Sol-Feace* was part of bundles in both North America and Europe, while *Cobra Command*, *Road Avenger* and *Time Gal* all ended up in European bundles.



GAME ARTS

SIGNATURE GAME: Lunar: The Silver Star

■ *Silpheed* was a rare case of a Mega-CD game that truly looked like a giant leap above standard Mega Drive fare, but the shoot-'em-up was easily eclipsed by the *Lunar* games. These RPGs became cult hits and are amongst the best releases on the system. *The Silver Star* was recently re-released on iOS in 2012.



ACCLAIM

SIGNATURE GAME: Mortal Kombat II

■ The only third-party publisher to commit to the 32X in any meaningful sense was also emblematic of its problems. All of the company's games were enhanced versions of standard Mega Drive games, bulking up the library for those who had already bought in without offering anything to entice players to upgrade.





DID YOU KNOW?

■ The Multi-Mega never officially reached Japan as a games console, but it was licensed to Linguaphone which branded it the Education Gear.



» [Mega Drive] Here's *WWF Raw* on the standard 'vanilla' Mega Drive…



» [32X] …and here's the 32X version. Would this have sold you on the upgrade?

December 1991, and by March 1992 it had already sold an impressive 200,000 sales. However, reality soon intruded on the dream start. Most of the Mega-CD's technical benefits were not made obvious, as early third party software offered little that the Mega Drive couldn't do save for some nice CD audio. In fact, quite a few of those games were converted back to cartridge for international release. Sega's own support was woefully lacking, with the platform holder publishing just five games during the machine's first year and squarely targeting the Japanese market with them. Disappointing software and the Mega Drive's low popularity in the region meant that this initial momentum stalled during the remainder of 1992, and the machine never recovered in Japan – the next 200,000 Mega-CDs took three years to sell, rather than three months.

In order to put together a stronger line-up for the North American launch in October 1992, Sega had to involve Western development talent. "I was very close to Olaf Olafsson at Sony, and his studio down in Santa Monica," Tom recalls. Sony had been working on CD-ROM games for the PlayStation (at that time, an all-in-one SNES CD console), but had recently been spurned by Nintendo in favour of Philips and was all too keen to help its primary competitor. "We knew they were doing some work on it, so that was how we all got together on this and decided to divide the work that Tom Zito had been doing."

> **"I showed my son what Mega-CD games were like. He said 'This is horrible, I don't want to look at this!' He was right!"**
> Tom Zito

Unlike other developers, which had been confronted with the improved hardware and struggled to come up with ideas, Digital Pictures already had the ideas in the form of games featuring live-action video footage – they had just been waiting for the hardware that could realise them. "Back in the Eighties, we had developed both *Sewer Shark* and *Night Trap* as two games for the Control-Vision system, which was the games system we had developed at Isix for Hasbro that was going to use VHS tapes as the medium of software," explains Tom Zito, former CEO of Digital Pictures. Hasbro cancelled the release of the system shortly before launch, as it couldn't be launched for the price point that the company had envisioned. Signing up with Sony to make the games for the SNES PlayStation had proven similarly fruitless. "We basically sat around for several months waiting for a development machine, and finally Olaf called me and said, 'You know what, it's not going to happen. We just weren't able to work out the deal.' I thought that was the end of everything."

The third time proved to be the charm, as the Mega-CD proved able to handle video – albeit with some serious coding work, as there was no off-the-shelf ▶



» [Mega-CD] Even with frames edited to suit the console, FMV games like *Cobra Command* exposed the Mega-CD's poor colour handling.



» [32X] *Metal Head*, like many 32X games, was visually distinct from Mega Drive fare – but struggled to offer strong gameplay.



codec available to do the job. There was one major fly in the ointment for Digital Pictures, though. For all the Mega-CD had expanded, the Mega Drive's severely restricted colour palette had remained untouched, lending FMV a grainy look. "About a year ago, I found a box with a Genesis and Sega CD, so I showed my son what the games were like. He said, 'This is horrible, I don't want to look at this!' He was right!" Still, it wasn't something Tom Zito was concerned about. Digital Pictures' Mega-CD games looked like nothing else on the market, and by this point nobody was too concerned about how the machine would do. "We didn't think about that, we were just pleased to finally get the games made," he recalls.

"Our plans were, I think it was for two or three hundred thousand units of hardware in that first period, and then I think we expected it to grow beyond that," says Tom Kalinske when asked about Sega's expectations for the machine. While production problems limited the Sega CD's NA launch, it did reach the 300,000 unit mark by March of 1993. The European launch in April 1993 was received with similar enthusiasm.

It was that year that would turn out to be the machine's peak, as developers were able to deliver on the hardware's potential by this point. Malibu Interactive offered up an awesome sprite scaling driving game in the form of *Batman Returns*, which showed that the Mega-CD could pull off a convincing impression of coin-op technology. Core Design delivered the likes of *Jaguar XJ220* and *Thunderhawk*, both of which also made extensive use of sprite scaling. Sega's Japanese teams finally released some big hits too, having put together an excellent conversion of Capcom's *Final Fight* as well as the obligatory *Sonic* game.

However, the overall impression of the machine wasn't overwhelmingly positive. While the highlights were there to be found, many games amounted to little more than cartridge releases with enhanced soundtracks and FMV elements. "I think that was a valid criticism," Tom Kalinske admits. "We didn't bring enough new to the party. It wasn't as different as it needed to be. Later on, one of the advantages was its tremendous storage capacity so it was great for bringing back a collection, but just doing cartridge games on a CD-ROM was not a step forward."

DID YOU KNOW?

■ Surplus 32X hardware was recycled for use in Sega's Picture Magic, a graphics tablet which interfaced with the Digio SJ-1 camera and PriFun printer.

By this point, the Mega-CD was stalling commercially. Late in 1993, Nintendo Of America's Peter Main stated, "My friends over at Sega haven't found a market for CD at $299. Sega CD is dead in Japan, dying over here and suffering in Europe." It was a damning statement, as should be expected from the representative of a competitor, but it was the truth. The Mega-CD's sales had flatlined in Japan. In Europe, software for Commodore's new Amiga CD32 was outselling Mega-CD software. By the end of the year, it was clear that the Mega-CD would never be a mass-market hit.

The problem with the Mega-CD was one of value. All of the extra capabilities that had been added to the machine gave it an enormous price tag of £269 – a little over double the £129 that the Mega Drive and SNES were retailing for. How much did this hurt the system? "I think quite a bit," Tom Kalinske says. "In those days that was a really expensive product, and that certainly limited the potential market considerably."

This was a problem that Sega was aware of and tried to mitigate – in both the UK and the USA, the machine was bundled with more than one game at launch, and later packages included as many as five CDs. Ultimately though, the hardware only fell to an attractive price point in 1995, when people were perfectly content to hang back and get a brand new console.

Was the Mega-CD technologically advanced? Absolutely, but it wasn't so much so that it was worth twice the cost of the basic console. Most of its benefits were tough to sell – static screenshots couldn't convey the effect of improved scaling or CD audio, after all. To the average consumer Mega-CD games like *Final Fight* and *Sonic CD* didn't look a great deal different to what was available on the Mega Drive.

The only games that seemed markedly different to existing cartridge games were the FMV-based games. However, even the novelty of these failed to hook players. "We really thought that there was a big range of games that we could do for this that had never been done before," says Tom Zito. "We had hurtled into the Sega CD business without thinking if we were still getting into the field we were getting into – a more casual gaming experience." The price of the Mega-CD meant that the players that bought it were either rich or very dedicated gamers, and FMV games just didn't offer the what was required to satisfy the hardcore.

"People often ask me, 'Was the Sega CD a mistake?' I don't believe it was a mistake at all," asserts Tom Kalinske. That might sound stubborn but the executive was thinking of Sega's long-term position. "I think we knew that with the high price, it wasn't going to be huge initially," says the former CEO. "The point of it more was that we had to learn how to do this – it was really a learning experience for all of us, as to what we were going to be able to do. If you look at what

"We didn't bring enough new to the party. It wasn't as dramatically different as it needed to be"

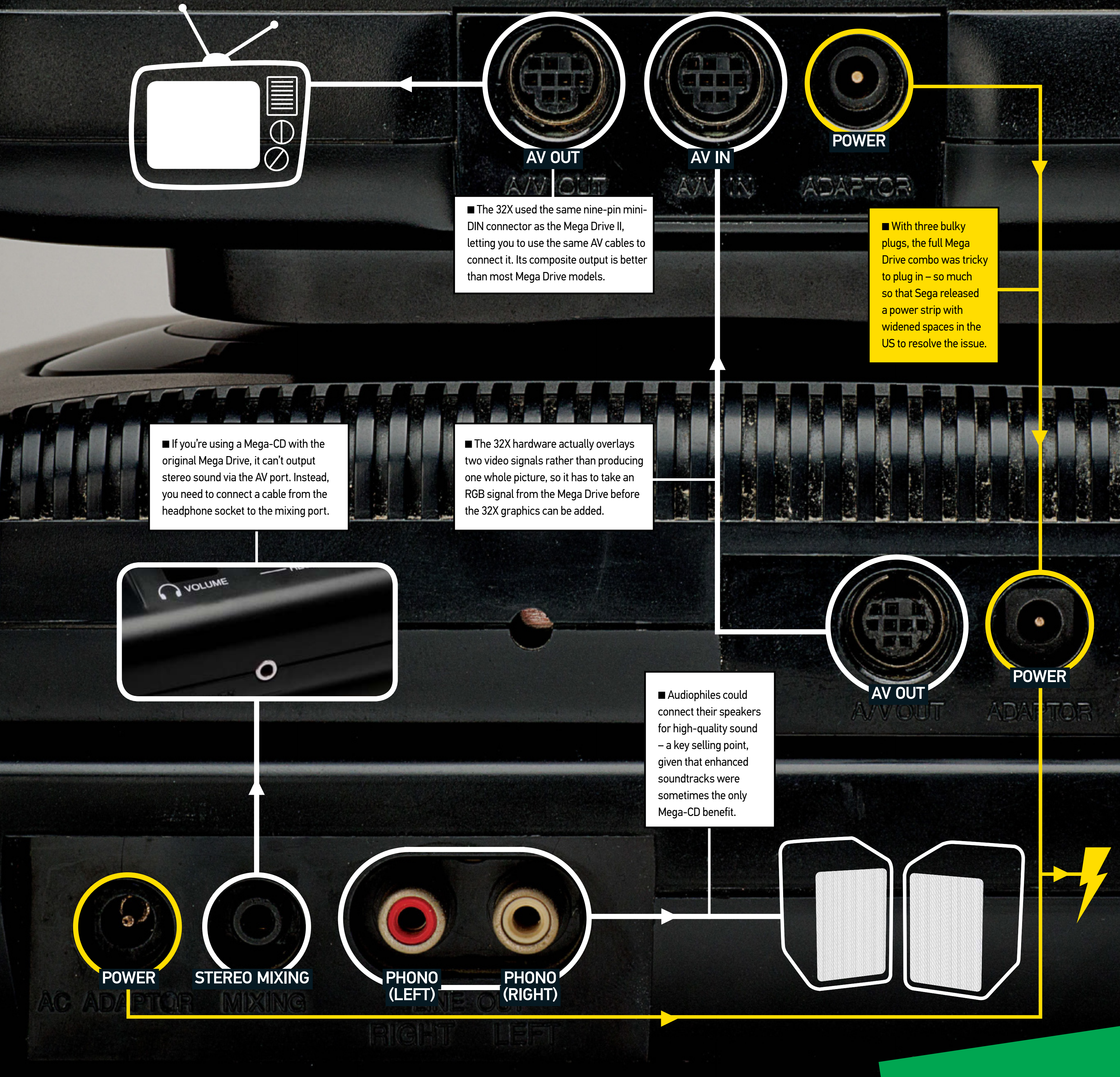
Tom Kalinske



» [Mega-CD] *Final Fight CD* is still a great conversion, but the benefit of CD is hard to convey in a screenshot.

POWER HOUSE

With three power supplies, two video connections and optional audio cables, the fully-upgraded Mega Drive was a complicated beast – here's what everything does



■ The 32X used the same nine-pin mini-DIN connector as the Mega Drive II, letting you to use the same AV cables to connect it. Its composite output is better than most Mega Drive models.

■ With three bulky plugs, the full Mega Drive combo was tricky to plug in – so much so that Sega released a power strip with widened spaces in the US to resolve the issue.

■ If you're using a Mega-CD with the original Mega Drive, it can't output stereo sound via the AV port. Instead, you need to connect a cable from the headphone socket to the mixing port.

■ The 32X hardware actually overlays two video signals rather than producing one whole picture, so it has to take an RGB signal from the Mega Drive before the 32X graphics can be added.

■ Audiophiles could connect their speakers for high-quality sound – a key selling point, given that enhanced soundtracks were sometimes the only Mega-CD benefit.

EXTRA EXTENSIONS

Plenty more capabilities were added to the Mega Drive over its lifespan, with some meeting more success than others…



MEGA MODEM 1990



■ This modem operated at 1.2 kilobits per second and allowed players to operate online banking services, download games and play multiplayer games. It flopped quickly, resulting in scrapped international release plans and the removal of its expansion port from most Mega Drive models.

MULTIPLAYER

1993



■ Games like *Bomberman* really need more than two players, so Sega introduced this device to add extra control ports to the Mega Drive. A second version added support for EA's 4-Way Play protocol. The device proved reasonably popular, with the second model supported by almost 80 games.

SIX BUTTON CONTROLLER

1993



■ Adding an extra four buttons to the standard Mega Drive pad allowed the system to produce pretty faithful versions of arcade hits like *Street Fighter II* and *Mortal Kombat*. The pad's low price and connection to popular games meant that it sold well and was widely supported.

POWER BASE CONVERTER

1989



■ Introduced a few months after the launch of the Japanese Mega Drive, this unit added backwards compatibility with Master System cartridges and cards. In regions where the Master System was popular, it sold well enough to receive a second Mega Drive II compatible model.

MEGA LD

1993



■ This software format was based on LaserDisc media, and could only be played on Pioneer's expensive LaserActive player with the Mega Drive extension module installed. Pioneer was the only publisher to support this format, pushing out more than 20 titles to its audience.



happened afterwards, everybody went to discs. In a way, we probably should have been working on it even earlier, to gain the experience of how to do it correctly."

So the Mega-CD was a misstep, for sure – but that's only obvious with the benefit of hindsight. The same can't be said of its partner in crime, the 32X. Having been bitten by the failure to generate a significant market for the Mega-CD, you might have thought that Sega would be wary of going back to the add-on idea. However, having won its market share by touting superior technology, Sega was afraid of losing its edge. At the start of 1994, the company was working under the assumption that the Saturn wouldn't complete its global launch until late 1995 – a timescale which left almost two years for the likes of the Jaguar and 3DO to gain traction.

"There was a discussion between Sega Of America and Sega Japan, about how long the Genesis could last, and what we needed to do to prolong its lifespan," recalls Tom Kalinske. "Initially, the argument was that we could get another year of life out of the Genesis before we had to introduce the Saturn. Japan disagreed with me on that, so as kind of a stopgap measure, the 32X came up." What's more, the position was that it was needed before the end of 1994.



DID YOU KNOW?

■ North American readers beware – the Genesis 3 is incompatible with both the Mega-CD and the 32X, so pick up an earlier model of the console.

While it was initially conceived as a standalone platform, a meeting between Sega's engineering teams concluded with the idea that an add-on would be a better idea – it would leverage the existing Mega Drive customer base and reduce the cost of entry. To make it a logical progression for developers, the machine used the same Hitachi SH2 processors as the Saturn, but with a lower clock speed and a different graphics set-up. The hardware provided decent polygon rendering capabilities and a greatly expanded colour palette, and could even be utilised by the Mega-CD.

The problem for Sega was getting it ready. "The other part of it was that we can't do this ourselves, we need support from Japan. There has to be a number of games that are developed in Japan for it as well as a number of games developed in the US – we know we can't launch a peripheral that only has a couple of games," explains Tom Kalinske. "That was where things sort of fell apart. There was the agreement to do that, but I think Japan was probably reluctant to do the number of software titles we wanted them to do."

By the time that development kits were available, barely any time was left for development, resulting in a permanent state of crunch time. "I think our start-to-end time on *Star Wars* was four months," says Steve

"People often ask me, 'Was the Sega CD a mistake?' I don't believe it was a mistake at all" Tom Kalinske



» [Mega-CD] *Silpheed* looked like a quantum leap, but the polygonal background was just pre-rendered FMV.

HYBRID HEAVEN

The all-in-one solutions that couldn't save the Mega Drive add-ons

Making a hybrid unit is something that can work to drive up an add-on's adoption rates, but this approach didn't seem to work for Sega. The first attempt to do so actually came from JVC in the form of the WonderMega, an all-in-one version of the Mega Drive and Mega-CD released in 1992. A revised model followed in 1993 and saw release in North America as the X'Eye in 1994. Of these, only the early models of the X'Eye is compatible with the 32X.

Sega's Multi-Mega (or Genesis CDX in North America) was also introduced in 1994 as a limited edition model aimed at high-end buyers. Like the WonderMega, it's a hybrid Mega Drive and Mega-CD, but it also functions as a portable CD player capable of running on batteries. Additionally, the Aiwa CSD-GM1 was a portable stereo with built-in Mega Drive and Mega-CD support – this model was released in Japan in 1994, and remains an expensive rarity. Both machines support the 32X, though are not ideally suited for it physically.

No official units ever combined the Mega Drive and 32X, despite the much-hyped announcement of the Neptune. While casing prototypes were made and eventually found their way into the hands of some lucky collectors, no functional prototypes were ever produced. However, enterprising modders have found it possible to squeeze the 32X's innards into a Mega Drive II case – though this requires major sacrifices, such as the removal of the Mega Drive II's original cartridge slot.





SAME NAME, DIFFERENT GAME

All too often, the Mega-CD suffered from barely-enhanced cartridge conversions. Here are five games that broke the mould…

MEGA DRIVE



THE TERMINATOR

■ The Mega Drive version of *The Terminator* is a decent if somewhat short and easy run-and-gun, but the Mega-CD game is a whole different kettle of fish. The whole thing has been redesigned from the ground up, with more stages, a higher difficulty level and an excellent soundtrack.

MEGA-CD





BATMAN RETURNS

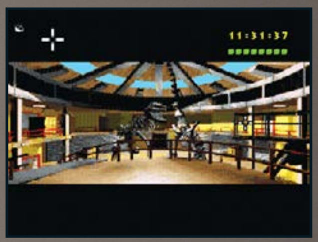
■ The cartridge-based game was a somewhat disappointing platformer, and it's included in full on the Mega-CD disc. However, a full second game in the form of an excellent 3D combat racer has been included, and you can choose to play the driving stages, platform stages or both together.





JURASSIC PARK

■ If you play the Mega Drive version of *Jurassic Park*, you'll get a fairly standard 16-bit platformer. The Mega-CD game was a sedate point-and-click adventure that attempted to use the advanced platform to its fullest, featuring pre-rendered 3D scenery akin to that of *Myst*.





ETERNAL CHAMPIONS

■ While most of the original content makes its way across to the *Eternal Champions: Challenge From The Dark Side*, the upgrade features new characters, new stages, rebalanced gameplay and cinematic finishing moves. It's one of the few essential upgrades over a cartridge release.





SAMURAI SHODOWN

■ Oddly, the Mega Drive and Mega-CD received two different conversions of the same game, with Saurus handling the cartridge version for Takara and Funcom developing the CD version for JVC. Neither version can be considered definitive, though the Mega-CD version is generally preferred.



> **"We worked seven days a week for four months straight, 12+ hour days were the norm"** Steve Lashower



» [32X] The untextured polygons common to 32X games like *Shadow Squadron* looked dated next to Saturn and PlayStation games.

DID YOU KNOW?

■ The only game to achieve the triple crown of individual releases on Mega Drive, Mega-CD and 32X is Activision's *Pitfall: The Mayan Adventure*.

▶ Lashower, a former Sega Of America programmer. "We worked seven days a week for four months straight, 12+ hour days were the norm. The company provided us with lodging nearby and brought us in lunch and dinner. I recall working until 7:00 AM, heading over to the hotel to shower, driving to school (I was still finishing up my degree), returning to the hotel to sleep for a bit, then back to Sega." Resources were stretched, too. "We had one prototype dev kit. That went to Chris Warner," Steve recalls. "He was tasked with writing the renderer based on what little documentation was translated into English at the time. I was able to code up the majority of the game flow and UI without having access to a 32X development system." Despite the pressure, *Star Wars* turned out to be a good conversion of the arcade game and a solid reason to buy a 32X.

The 32X didn't have the Mega-CD's problem – a single look at a 3D game like *Star Wars* or *Metal Head* was enough to show you what the add-on brought to the table. The problem was that Sega was simply competing with itself and causing consumer confusion in the process. In the months surrounding the launch of the 32X, magazines like *Mean Machines* Sega had letters pages filled with people asking whether they should get a 32X or wait for a Saturn. The advice was to buy a 32X because the Saturn wouldn't be out for ages, but this soon changed. "It all goes back to the decision to launch the Saturn early," Tom Kalinske says.

But if the arrival of a more powerful platform wasn't going to kill the platform, a lack of quality software certainly would. "After *Star Wars*, there was a huge push to get more 32X projects out the door," Steve explains. "Since we had experience with the console, quite a few projects were under development at Sega Interactive. With the exception of the excellent *Ratchet And Bolt*, most were laughably bad." How bad could they possibly have been compared to games like *Cosmic Carnage*? "One title comes to mind: *X-treme Sports 32X* was a mix of concepts that were neither extreme nor sporty," Steve says. "Sega Interactive was doing crazy stuff: the sprites for *Jet Ski Football* were painstakingly rendered by 3D animators on a SGI mainframe. Not many people could tell, as they were at most only 16 pixels tall."

"I think Sega really backed itself into a corner with the 32X," says the former programmer. "Most recognised it as a scaled-down Saturn and held out for the new console instead." With the more powerful 32-bit system pushed out ahead of schedule, developers didn't want to work on the 32X and players were already looking past it. Losing the argument over whether the Mega Drive remained viable had caused the 32X to come into existence, and losing the argument over launching the Saturn early had doomed it to irrelevance.

"Obviously the 32X was a failure," says Tom Kalinske. "It was a failure because we didn't develop enough good games in the US and we didn't get enough support from Japan. I've had players tell me that the enjoyed *Doom* on 32X, they thought that was just terrific, and I say, 'Was it worth the price you had to pay?' And they said yeah, from their standpoint it was worth the price they had to pay, so I don't know. From a business standpoint, it certainly wasn't successful."

Ultimately, the Mega-CD and 32X did nothing to damage the Mega Drive itself, which was already an successful machine for its time. People could safely buy into the platform at the time, knowing that there was already a huge software library out there and plenty of support to come. In later years, few enough people had experience with the add-ons to tarnish the Mega

» [Mega-CD] Despite its poor reputation, the Mega-CD library contains some genuine classics such as *Sonic CD*.



Drive's robust legacy – it's rare that you'll find anybody who judges the machine by its add-ons.

But what the add-ons did do was damage faith in Sega, and the publicity surrounding them made it harder to buy into any of the company's new platforms. Introducing one failed add-on would have been an experiment gone awry, and Sega could have brushed off the Mega-CD – it had its supporters. Pushing two add-ons was wrong, but still not fatal. What soured consumers on the add-ons was a failure to support them. This came back to bite the company during later years – when Tom Kalinske's successor Bernie Stolar declared that, "The Saturn is not our future," at E3 1997, over two years before the Dreamcast would launch in the territory, people saw Sega as having abandoned a young platform for the third time in a row. It wasn't unreasonable to conclude that the same would happen to the Dreamcast, and that's what people did.

Ultimately, Sega's tale of woe would prove to be a cautionary story for the industry at large – don't gamble your successes away just because you're scared that someone else at the table has nicer cards. ✱

YARS' REVENGE

The Atari 2600 dominated console gaming in the early Eighties, but it struggled to replicate vector coin-ops. Developer Howard Scott Warshaw tells Rory Milne how this design dilemma inspired him to create Yars' Revenge



YARS' REVENGE 101

■ While aesthetically minimalist, the goals set by *Yars' Revenge* make it a complex single-screen shooter. Enemy shields can be fired at or eaten away, safe zones offer sanctuary from homing missiles but disable your weapons, cannons are aimed by moving your avatar – and the game's 'ultimate' mode is infinitely more sophisticated.

Few would argue that the low-res display of the Atari 2600 was suited to reproducing the vector graphic coin-ops that graced arcades during the console's heyday. Coder Howard Scott Warshaw certainly didn't think so when he joined Atari in the early Eighties, and he took the risk of telling his manager as much. But this wouldn't be the first or last risk Howard would take on his way to completing his first 2600 assignment. In fact, the new-start's probationary employment with Atari was only made possible by a decision to give up a better-paid, permanent position at Hewlett-Packard.

"In college, I had a lot of experience in microprocessors and networking, which was a very unusual thing to have back in the late Seventies," Howard explains. "I went to Hewlett-Packard and was working in its networking software department but it wasn't very interesting. I liked microprocessors and I was working on a mainframe. Also, the environment was boring. I heard about a place from one of my co-workers where the kind of crazy stuff that I would do at HP would be a common occurrence. He said: 'It's called Atari.' So I went and interviewed there. They seemed to feel pretty good about me except they didn't think I would really fit in because they thought I would be too straight-laced! But I talked them in to giving me a shot. I took a big cut in pay and went on to probation just so I could show them what I could do. And they went for it. I said: 'What's your most primitive system? That's the one I want to work on.' That's how I chose to work on the VCS. I thought I'd like to start on the most primitive thing and move up."

But soon after landing his first 2600 project, Howard concluded that Atari's basic console was ill-suited to hosting the vector conversion he had been tasked with. "I was assigned *Star Castle*, and the first thing I do on my first project is tell them that it won't work on the machine and I want to do something else. That was a kinda gutsy thing to do, I guess. But I really felt what they were asking me



» [Atari 2600] An unexpected attack by the Qotile in Swirl form sends the Yar running for cover.

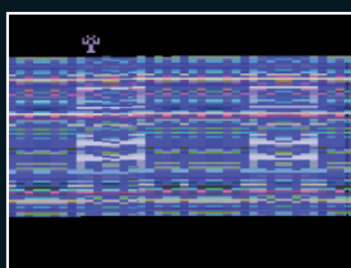
to do was make a good game. So I told them that I could rearrange the basic components and dynamics and do something that more suited the machine. And, to their credit, my manager said: 'Why don't you go ahead and we'll see how it goes.' That was the beginning of *Yars' Revenge*, which wasn't actually *Yars' Revenge* at that point."

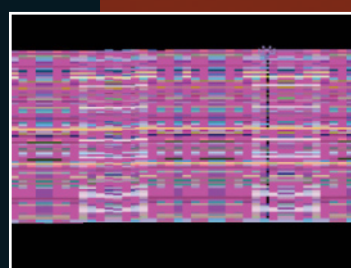
In fact, Howard initially called his reworked *Star Castle* port *Time Freeze*, but in most respects, this early iteration was a prototype for *Yars' Revenge*. "It was still the same basic game that I was creating. But I wanted a sequence so that when you destroyed the monster all the action on the screen would freeze. You would then see progressively from right to left a whitening out of the screen and a full-screen explosion. That's why I called it *Time Freeze*. I never actually did that elaborate sequence, but I did end up doing the full-screen explosion."

Besides defining reward sequences, Howard also gave due consideration to his project's graphics and animation, and in particular the visuals for his insect protagonist. "There were no storyboards – there was a block of graph paper. I wanted everything to be animated. The reason I made *Yars' Revenge* the way it is, was so the arms could be animated. To have them flicker back and forth like that was so people got the idea of a fly. I made the graphics symmetrical to save on space. If your graphics are symmetric you only need half the graphics."

And although seemingly an afterthought for some designers, a love of film made Howard keenly aware of how sound effects could enhance his game. "I loved film; sci-fi movies in particular. And I wanted sound to dictate mood. Most games had bleeps. The occasional event would happen and you would get some audio feedback. I wanted sound to create mood, foreshadow events and build tension. The VCS is tremendously limited graphically so I tried to use sound to give the game a bigger impression."

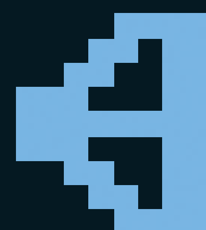
> **"The monster was never random, but it had a very coarse aiming system initially, and then it made progressive adjustments in flight to get more accurate"**
> Howard Scott Warshaw





» [Atari 2600] A rainbow-hued victory screen rewards the Yar each time it takes out a Qotile.

» [Atari 2600] Dispatching a moving Swirl and flying up the victory screen's black line triggers an Easter Egg.



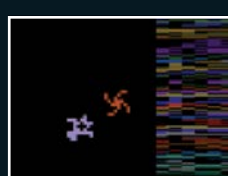
HOW TO PLAY YARS' REVENGE
The immersive gameplay dissected



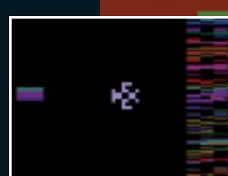
RULES OF THE ION ZONE
■ Sited midway between the Yar and Qotile territory, the Ion Zone is a vertical belt of space debris where the Yar can take refuge from the Qotile's dogged homing missiles. The downside to being in the Ion Zone is that your very own weapons are disabled.



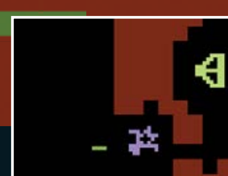
BREACHING THE QOTILE'S SHIELD
■ Blasting or eating a hole in the Qotile's shield is a key objective in *Yars' Revenge*. Not only because the shield keeps the Qotile safe from the Yar's Zorlon Cannon, but also because the Qotile can launch deadly attacks if not swiftly dispatched.



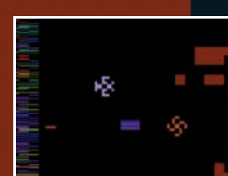
AVOIDING THE SWIRLS
■ Although its usually harmless, the Qotile can adopt a Swirl form that's lethal to the shieldless Yar. The Qotile becomes red in colour before shape shifting, then begins to spin and without warning rockets across the screen in pursuit of the Yar.



OBTAINING THE ZORLON CANNON
■ Tagging the Qotile or biting into its shield rewards the Yar with the one weapon that can defeat its arch enemy – the Zorlon Cannon. Until launched, the cannon's vertical movement is synched to the Yar's so that the Qotile can easily be targeted.



RULES OF ULTIMATE YARS
■ Essentially a more demanding version of *Yars' Revenge*, the game's 'ultimate' mode introduces bouncing Zorlon Cannons, the acquisition of which requires the Qotile to be tagged multiple times or large chunks to be eaten out of its shield.

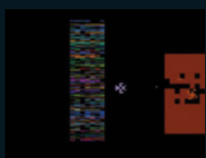


TRIGGERING THE EASTER EGG
■ The victory screen in *Yars' Revenge* is an explosion of colour rendered after defeating a Qotile. But in the game's 'ultimate' mode, if you destroy a Swirl while it's in flight the victory screen displays a black line that if followed triggers an Easter Egg.

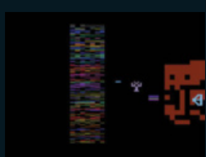




» Howard Scott Warshaw is now a therapist focusing on the needs of Silicon Valley's hi-tech community.



» [Atari 2600] The Qotile's defences are blasted by the Yar as it adopts its deadly Swirl form.



» [Atari 2600] Zorlon Cannons bounce right off the Qotile's shield when playing in 'ultimate' mode.

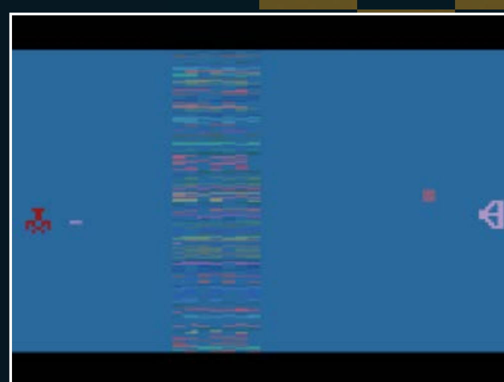
In order to define his game's stages and gauge their difficulty, Howard favoured grey matter over paper planning and linked the accuracy of his antagonist to the score achieved by players. "[The stages] were all in my head. I never wrote down: 'Well this will go here and that will go there.' What I did was, I would think up something and program it in. Then I had a number set to be the score level at which this changes, and I could fluctuate that. The monster was never random, but it had a very coarse aiming system initially, and then it made progressive adjustments in flight to get more accurate."

One constant in every level of Howard's game, however, would be the glittering Ion Zone, which was designed initially as a visual effect but then incorporated into the gameplay. "For the glitter effect, I was looking for randomised data and colours. A good random number is just grabbing a byte of code and seeing what you have got. I would take a machine instruction and throw it in the graphics register and then in the colour register. And when I played them both in counter-scrolling it got that glittering, colourful effect. Since it was there, I figured it might as well have a gameplay purpose. I just figured that I would set it up so that you're safe from the hunter-killer missile but you can't do damage. It was unfair to allow a player to sit in safety and do damage."

While Howard's hero would look to the Ion Zone for protection, his monstrous villain could seek refuge behind one of two types of shield.

"The major shift in the shield was between the static shield and the moving shield. I just did that because the static shield was the only thing on the screen not really doing anything. It's a very new look and it's deceptive. It looks like a solid block initially, except the first time you hit it you realise it's moving. There are times where the monster is surprisingly protected and times where it is surprisingly vulnerable. So sometimes you would make a shot and it seemed like: 'How could it possibly get through?' And it did. And other times you would think: 'I got it dead on.' And somehow you didn't."

Although Howard gave his insect antagonist the option to damage their enemy's shields with missiles or their teeth, dispatching the foe would require a cannon. "Initially, I had a mechanic where I used the stick, which was right and left to rotate, forward to move, and back on the stick got you the cannon. But that was counter-intuitive. What made a lot better sense was: move the stick and [the avatar] moves. When I made



» [Atari 2600] Between games, *Yars' Revenge* displays an attract screen rendered in countless colour combinations.

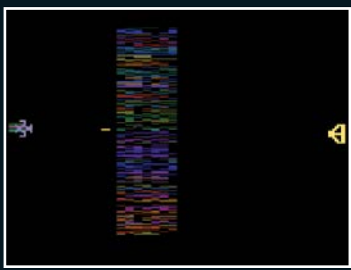


IN THE KNOW

» **PUBLISHER:** Atari Inc.
» **DEVELOPER:** Howard Scott Warshaw
» **RELEASED:** 1982
» **PLATFORM:** Atari 2600
» **GENRE:** Shoot-'em-up



> **"The major shift is between the static and moving shield. It looks solid, initially, except the first time you hit it you realise it's moving"**
> Howard Scott Warshaw



» [Atari 2600] In 'ultimate' mode, touching the left side of the screen activates the Zorlon Cannon.



» [Atari 2600] Successfully targeting the Qotile with a Zorlon Missile almost costs the Yar its life.

that change, I lost the ability to get the cannon up on the screen with the controller. But I found a game mechanic to bring it up instead. So the way you got the cannon to kill the monster was to eat some of the shield or touch the monster – because you could eviscerate the shield and if you had no way to get the cannon you were in a deadlock. But touching the monster was very risky. The cannon aiming dynamic was not random either. I thought: 'Isn't it interesting to have to place yourself in danger again.' You use your position to aim it, which means that at the time you fire that cannon you will be killed if you don't move. Trying to kill the monster was a series of putting yourself in danger and getting out of it. Before that, the game looked cool, but it wasn't very exciting to play. Then suddenly, it went from 'an interesting looking thing that new kid is doing' to [other] game designers wanting to play the game to see who's better!"

In order to further enhance his game, Howard gave it four distinct modes, each with one or two player options, culminating in a seriously challenging 'ultimate' mode. "More game modes was just viewed as a positive thing, so I just tried to think of variants and ways of entering the game at different stages so that you could take the game on as you liked to. Because when you get really good at a game sometimes the working up through the early stages is a pain in the ass."

Although Howard had poured effort into refining and perfecting his game, someone in Atari's management didn't want it released. "There was someone who felt there were problems. Ultimately, they did a playtest where over a hundred people played the game and a control game, and rated them. The game they picked to test *Yars'* against was *Missile Command*, which was the hottest game on the 2600 at the time. But at the end of the day, *Yars'* tested higher. The group it did the best with was women – and Atari wanted to get them more involved in the market. So I said: '[It] appeals to women. It beats the highest rated game you have. Why don't you release [it]?' They did, but the commercials were focused at ten-year-old boys. That was really weird, but that's where they were shooting at."

Advertising aside, Howard took great pleasure from the release and reception of *Yars' Revenge*. "People really liked the game. To walk into a store and see kids fighting over the opportunity to play my game, that was fabulous. Back then, it was one-person, one-game. If it failed it wasn't very fun, but when you saw people digging your game that was an amazing feeling to have."

The reaction of fellow Atari developer David Theurer to *Yars' Revenge* was equally enthusiastic, with the coin-op legend even suggesting an arcade conversion. "When Dave saw *Yars'*, he was starting to think that this would make a fun coin-op but it didn't happen."

When asked for his feelings on *Yars' Revenge* given hindsight, Howard offers a single alteration and finishes by expressing how happy he is that so many people have enjoyed playing his game. "The main thing I thought was to take the hunter drone and split it into two so that it becomes harder to evade. But mostly I was just really happy with *Yars' Revenge* and the way it turned out. This game has generated literally millions of hours of enjoyment for people all over the world. That just makes me feel good every day." *

A huge thank you to Howard for making this article possible.

YARS' REVENGE 2011

Howard on the Yars' Revenge reimagining

I was asked to review that game, and I was very disappointed in it. The problem is that one of the fundamental design principles of *Yars' Revenge* is freedom. You have freedom to go wherever you want and do what you want. What they did was create a sensory overload with all of the stuff that they throw at you. And that kind of frenetic action is a *Yars' Revenge* kinda thing. But they made it a 'rail game' – where you have to go on one predetermined course. You don't want to take the Xbox 360 and do a VCS game, that's for sure. But you don't want to make it more restrictive. And that really bothered me. No one talked to me about it, which is fine. If I had been involved that would have been the first thing I would have recommended they shift. The reviews were actually not very complimentary at all, [and] they've never contacted me. I have a feeling that's partially because of the way it was received. If it would have been a hit game then I'm sure I would have heard something by now from someone who was involved in that game.



DEVELOPER HIGHLIGHTS

RAIDERS OF THE LOST ARK (PICTURED)
SYSTEM: Atari 2600
YEAR: 1982

E.T. THE EXTRA-TERRESTRIAL
SYSTEM: Atari 2600
YEAR: 1982

SABOTEUR
SYSTEM: Atari 2600
YEAR: Unreleased

OPERATION WOLF

"Operation initiated! Rescue hostages!" On hearing this command, gun in hand, players engaged in Operation Wolf, the first in Taito's influential series of military shooters. Martyn Carroll lobs a grenade and blows the lid off the complete series

As you play *Operation Wolf* and the bodies pile up you wonder if it's even possible to fail. Enemy soldiers perish in an instant as the screen is sprayed with gunfire and rocked by explosions. It really is difficult to miss and success seems guaranteed.

Taito must have been thinking much the same when it readied the game for its Japanese debut in November 1987. The developer didn't need to plant the game in test locations to know that it had created a sure-fire hit. *Operation Wolf* was one of those rare titles where all of the key elements were *just right*. First off, the concept was brilliant. Taito took the shooting gallery games from time immemorial and created a slick new version for the Eighties arcade. It wasn't the firm's first gun game – *New York Captor* (1985) and *Cycle Shooter* (1986) predated it – but these were simplistic and cartoony. *Operation Wolf* was far more contemporary, running on 68000-powered hardware, as opposed to Z80 setups. The visuals were cutting edge for their time, with differently-sized enemies providing a sense of perspective, capped by the supersized soldiers who'd pop-up in your face and open fire.

The POW rescue theme added a huge amount to the game's appeal. This was no carnival shootout with tin cans; this was an intense battle where you were up against enemy militia armed to the teeth. Taito clearly tapped into that jingoistic vein of Eighties American cinema where movies like *Missing In Action*, *Rambo* and *Commando* became hits around the world. You played an anonymous Green Beret but his name might well have been James Braddock, John Rambo or John Matrix.



» [Arcade] Enemies come thick and fast, even on the opening Communication Setup stage.

Then there was the gun. Mounted on the front of the game's hulking great cab was a mock submachine gun. Sticking guns onto cabs wasn't a new thing – Midway has been doing it since the Sixties, first on mechanical games and later on videogames, and Taito itself released a gun game called *Attack* in 1976. The trend continued into the early Eighties with titles such as *Mazer Blazer* from Stern and *Turkey Shoot* from Williams. But the *Operation Wolf* gun was a doozy, being based on an Uzi 9mm. It was no plastic prop – it was finished ▶

"Taito clearly tapped into that jingoistic vein of Eighties American cinema"



Artwork © Taito



▶ in metal and incorporated a geared motor so you felt the kick when you pulled the trigger. The gun was a gimmick, yes, but it didn't look and feel like a gimmick. The finishing touch was a red button next to the barrel which you used to fire grenade rockets.

The operation of the gun has been a source of confusion over the years. Is it a lightgun or is it a gun that works like a joystick? The presence of an optic sensor inside the gun proves that it is a lightgun. You can also tell by the way the screen flashes white each time a shot if fired – this is to brighten to screen so that the gun's position can be registered. And if you're still not convinced, try playing the game with your hand covering the end of the gun. No light no firefight.



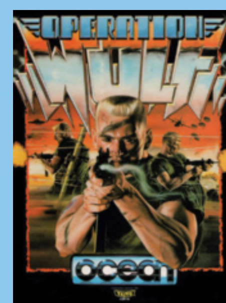
» [Arcade] Grenades are a great option when armoured vehicles rumble onto the screen.

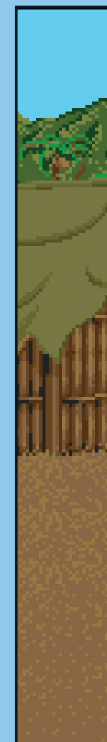
There's also some confusion over the level structure and whether stages must be played in order or not. The answer to that lies in a dipswitch setting. When 'Language' is set to 'English' you play the game's six stages in order, beginning with the Communication Setup and ending with the Airport. Yet when the switch is set to 'Japanese' more than just the language changes. Instead you can choose which of the first four stages you wish to play from Communication Setup, Village, Power Magazine and Jungle. By completing Jungle you will open up Concentration Camp which leads to the Airport, so in the Japanese version it's possible to finish the game by completing just three stages. However such hastiness is penalised. If you don't complete Communication Setup, for example, the number of enemies increases in each stage (because, as the story goes, the enemy is able to radio in reinforcements). Similarly, the Village stage rewards you with a health boost while Power Magazine tops up your ammo. As such the Japanese version includes an element of strategy as you can choose which of the initial stages are worth the effort.



In addition to the English and Japanese versions there's a further intriguing variation: original and emulated. If you've played *Operation Wolf* using MAME, or on the 'arcade perfect' *Taito Legends* collection released in 2005, you may have noticed that a few things don't tally with your memories of playing the game in the arcades. The most obvious omission is a 'boss' encounter at the end of the Jungle stage where you have to shoot an army general who's holding a female hostage. Also missing are

» [Arcade] When using MAME the bonus 'Warning!' screens can be accessed by using a cheat.





DEVELOPER Q&A

Former Ocean France programmer Christophe Gomez reveals the story behind the 16-bit versions of Operation Wolf



Did you have access to the coin-op during the development?
Not at the beginning. We got it very late, toward the end of the project, and it helped me tune the game. But we did receive all the art assets from the arcade. I remember that they came in a bunch of 16x16 blocks, each using its own palette of 16 colours. It was a real work of patience to recreate everything.

Which was the lead platform? The Atari ST or Amiga?
Atari ST was the lead. I chose it because I was more familiar with it. Midway through development, once the main technical hurdles had been resolved, we started porting my code to the Commodore Amiga in order to make sure we were maintaining compatibility.

What would you say was the biggest technical challenge you faced?
The arcade game was famous for its smooth horizontal scrolling and huge sprites – two things that the Atari ST wasn't very good at! So this was the main challenge. And then the more features I added the more I needed to optimise the code so it would run smoothly. I had to rewrite some significant parts of the code several times in order to deliver an enjoyable experience to players.

How long did the development take? Were you pressured to get the game out before Christmas?
I believe it took six to eight months to complete it. And yes, there was a lot of pressure to release before Christmas. This industry will never change. Luckily we did not have to cut corners in order to release on time. I was young and stubborn so I wouldn't have let the game go if it wasn't finished.

There's an open-top tank that's specifically unique to your version. Did you add this?
I don't recall creating new vehicles. If my memory is correct I think there were some vehicles in the assets we received that were not used in the arcade game.

Were you pleased with the finished game, and would you have done anything different given the chance?
I was very happy with the reviews. My goal was to be as close to the arcade as possible and I believe I managed to do this, considering the limitations of the machines then. I wish I could have implemented support for a lightgun. After leaving Ocean I joined Loriciels and helped with the Atari ST version of its *West Phaser* game, which was shipping with a lightgun. I even created a version of *Operation Wolf* which worked with the gun but, unfortunately, Ocean and Loriciels never reached an agreement about it. This would have been the ultimate version of *Operation Wolf*.



» [Amiga] The unique open-top tank makes an appearance in Ocean's 68000 version.



» [Arcade] Shoot the soldier! Shoot the coconut! DON'T shoot the kid!

> "There was no blood on show but the body count was off the scale and the soundtrack was a chorus of screams"

the intermission scenes that pop up between stages. These see you shooting soldiers and/or helicopters on a static screen. It's possible to access these intermissions using a cheat in MAME, and the Jungle boss graphics are present in the ROM, so it's a mystery as to why they don't appear under emulation.

Operation Wolf made its UK debut at London's Associated Leisure Preview show in October 1987 and staff from the Emap stable of magazines were there to see Taito's latest offering. *Commodore User*'s Mike Pattenden was bowled over. "Forget *After Burner*," he reported, brushing aside Sega's big release, "I have just played the Game Of The Year and much of next year too. *Operation Wolf* is a brilliant game." Clare Edgeley from *Computer & Video Games* was also impressed. "The game is extremely playable," she wrote. "The action's non-stop and doesn't let up for a second."

The reaction was generally excellent, although most reviewers did comment on the game's level of violence. There was no blood on show but the body count was off the scale and the soundtrack was a chorus of screams. At the time it was quite contentious, particularly in the UK, post-Hungerford massacre. Chris Jenkins of *ACE* magazine claimed that playing the game filled him with "bloodlust". He wrote: "*Operation Wolf* takes realism a little too far and raises questions as to whether these games ought not to be subject to some form of monitoring."

Perhaps more concerning for the game's target audience was the price of entry. In the UK at the time games cost 20 pence a credit, but *Operation Wolf* was one of the first where operators were encouraged to up it to 30p! This premium didn't affect the game's popularity. An *ACE* journo ▶



» [FM Towns] The Jungle boss hostage scene, as seen in the impressive FM Towns conversion.

OPERATION COPYCAT

The coin-ops that followed in the wake of Operation Wolf

MECHANIZED ATTACK 1989



■ SNK's answer to *Operation Thunderbolt* was released just a few months after its inspiration and actually managed to top it in the pure action stakes. And if shooting thousands of enemy soldiers wasn't enough the game also threw *Terminator*-style robots and oversized end-of-level bosses into the mix.

LINE OF FIRE 1989



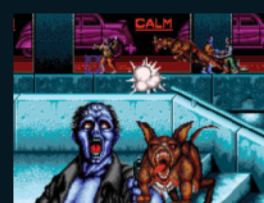
■ Sega had dabbled with gun games since its early history so it was hardly surprising to see it weigh in with its very own *Operation Wolf* clone. The familiar behind-enemy-lines scenario was well presented, thanks to Sega's Super Scaler tech, and the game provided adequate thrills for fans of Taito's games.

SPACE GUN 1990



■ Rather than release another rat-a-tat-tat war game Taito shifted the setting to outer space for its next shooter. Inspired by *Aliens*, you had to rid a space station of bizarre creatures while rescuing colonists. Stages were a mix of side-scrolling and into-the-screen sections, and a special foot panel let you reverse direction.

BEAST BUSTERS 1990



■ SNK upped the ante with this outrageous shooter that made *Mechanized Attack* look like a corporate paintball event. Zombies had overrun the city and the job of cleaning up was down to you and two pals. That's right – *Beast Busters* had three guns bolted to the front of the cab for triple the amount of bloody fun.

STEEL GUNNER 1991



■ Before the likes of *Point Blank* and *Time Crisis* were huge arcade hits, Namco released this fast-paced two-player shooter where you were tasked with taking down an army of manic cyborg terrorists. A souped-up sequel arrived the following year that was widely sold as a conversion kit for *Operation Thunderbolt*.

TERMINATOR 2 1991



■ Of all the tie-ins to try and capitalise on the mega success of James Cameron's movie, this slick shooter from Midway was probably the best. The digitised graphics appear comical now but at the time they really did impress and gave the game a real movie feel. An overuse of Arnie sound bites improved things further.

CONVERSION CAPERS

How the many home versions of Operation Wolf compared to the original – and each other



» Although far from a common sight these days, it's still possible to find working cabs in some of the dustier arcades.



ZX SPECTRUM

■ The Spectrum wasn't the best at fullscreen scrolling but the team at Ocean managed to produce a surprisingly smooth and playable effort. Colour was obviously scarified to make it work, but the well-drawn graphics prevented it from becoming a monochrome mess. The preferable 128K version featured no multi-load.



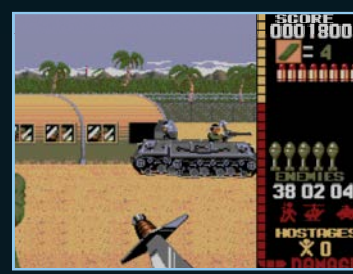
AMSTRAD CPC

■ The same team responsible for the Spectrum release produced this even better version for the CPC, thanks chiefly to the liberal use of vibrant colour. The only slight criticism is that the game scrolls too fast – it's like you're shooting out of the window of a speeding vehicle! It's still a very good coin-op conversion, though.



FM TOWNS

■ The enigmatic Japanese computer received a fantastic version that was unique in a number of ways: there was a laser sight option, a '3D Scope' mode (that supported 3D glasses) and a full CD-audio soundtrack, making it the only version of *Operation Wolf* to feature in-game music. There are no half measures here.



AMIGA

■ There was essentially zero difference between the Amiga and Atari ST versions, with Amiga expert Benoit Aron deftly converting the ST source. The sound was slightly better on the Amiga, as was usually the case, and it came on two disks rather than three, but owners of either machine would be happy.



PC-DOS

■ The PC often lagged behind when it came to coin-op conversions but not here. The colours were slightly off and the sound was lacking but overall this looked and played very much like the 68000 versions. In terms of content the only real absence was the 'Warning!' scene that appeared in some other versions.



NES

■ The first version of the game to hit console was something of a misfire. The graphics were too small and only a limited number of sprites appeared on the screen so it often felt a bit sparse. It did deserve points for supporting the NES Zapper, although it's debatable whether using the gun improved things much.



PC ENGINE

■ Arriving at the tail end of 1990, three years after the coin-op's debut, this version was belated but brilliant nonetheless. It was based on the Japanese language version, so you were able to select your starting stage, and as a special bonus it aped the sequel by adding a two-player co-op mode.



COMMODORE 64

■ Another excellent 8-bit version from the boys at Ocean. The pace was slower, being closer to the coin-op than the Z80 versions, and most of the main features were included – in fact, all six stages were crammed into a single load. The icing of the cake was support for the third-party NEOS mouse.



ATARI ST

■ Ocean France did a fine job here. The game featured all of the stages – the bonus 'Warning!' scene was slotted between stages one and two, and the Jungle boss made an appearance – and visually the game was close to the coin-op. There were just some frame-rate issues that dragged it down a notch.



MSX

■ As you can tell from the screenshot this was a quick port of the Spectrum version. What you can't tell is that is runs quite a bit slower, affecting the playability a little. A homebrew version for the MSX-2 was released in 2006 that was quite similar to the NES release, but it suffered from jerky character scrolling.



MASTER SYSTEM

■ Visually the Master System version was quite close to the NES game, with perhaps better use of colour and more graphical detail. But the playability was vastly improved and the game stood out as the best and most complete 8-bit version available. Support for the Light Phaser sealed the deal.



PC/PS2/XBOX

■ *Operation Wolf* was one of 29 games included on Taito Legends, released in 2005. However, as mentioned in the main article, the game wasn't 'arcade perfect' as advertised as it was missing both the 'Warning!' scene and Jungle boss. The games also, sadly, lacked lightgun support.

▶ recalls stepping into a London arcade and seeing *seven Operation Wolf* machines lined up – and he still had difficulty getting a game. Such scenes ensured that *Operation Wolf* would go on to become the top earning coin-op of 1988.

The game's success in the arcades attracted Ocean Software who licensed the game for conversion to home computers. The 8-bit versions were handled by Ocean's in-house team: Andrew Deakin programmed the Z80 versions (ZX Spectrum, Amstrad CPC and MSX), while Colin Porch handled coding duties on the C64. The results were generally very good, with the original's gameplay accurately replicated, and the Spectrum, CPC and C64 releases were further improved with a second version that included support for the Magnum Light Phaser lightgun. The 8-bit games did jettison a few 'bits' from the original – there was no Jungle boss, no intermission scenes and, most noticeably, no showdown against the enemy gunship. In contrast, the Atari ST and Amiga versions, which were developed by Ocean France, included all of these elements and the finished games were generally very good.

The licence paid off for Ocean. In the UK *Operation Wolf* was crowned best-selling title of Christmas 1988 – and it stayed at the top of the all-formats chart for a further three months. It was a fan favourite too, winning three awards at the 1989 Golden Joysticks (as voted for by *C&VG* readers): Best 8-bit Coin-op Conversion, Best 16-bit Coin-op Conversion and Overall 8-bit Game Of The Year.

> **"To beat the game you basically had to kill the population of a small nation"**

More home versions followed over the next two years. Taito itself developed the PC, NES and Master System versions, while Ving produced a deluxe disc edition for the FM Towns computer that featured an exclusive CD soundtrack. Perhaps even more interesting was NEC's PC Engine port which was the first and only version of *Operation Wolf* to team up two players for some co-op action. There's no prize for guessing where NEC got that idea.

As Ocean readied its home versions for release in November 1988, Taito was already about to debut the coin-op sequel. It may have been developed in haste, to capitalise on the hit original and counter the inevitable clones that were gearing up, but *Operation Thunderbolt* was in many ways the perfect follow-up. It was basically a frenetic rehash of the original with an even bigger body count and enough new features to hook expectant gamers.

The basic rescue scenario returned, but there were now a total 18 hostages to liberate (up from six) and the number of stages increased from six to eight. Crucially, the stages alternated between the familiar side-scrolling view and a new quasi-3D approach where enemies rushed towards you. This scaling effect required some extra hardware grunt and the standard 68000 set-up was supplemented by the same 'sprite zooming' feature that was used in Taito's *Full Throttle*.

The most obvious addition, however, was the second gun. The nameless hero from the original was revealed as Roy Adams and he was partnered with the no-nonsense-sounding Hardy Jones. Taking on the enemy with a pal was undeniably fun, even if the sheer number of on-screen enemies was absurd. To beat the game you basically had to kill the population of a small nation.

Rather than using lightguns the sequel utilised a pair of positional guns that directly controlled invisible cursors on the screen (although they could be made visible by collecting the new laser sight upgrade). It's not clear why Taito didn't use ▶



» [Arcade] The sequel features three separate bosses, including this eyepatch-wearing commando.



» The *Taito Legends* collection features the first two games along many other titles from the firm's rich arcade past.

▶ lightguns second time around but it's believed to be down to reliability issues. The sensor inside the original lightgun was prone to failure, due to wear and tear, so positional guns tended to require less maintenance.

***Operation Thunderbolt* debuted in Europe at the Amusement Trades Exhibition International** show in January 1989. The reaction was slightly muted compared to the original – it was a sequel after all, treading roughly the same path – but it was still expected to do the business for Taito. *C&VG*'s Clare Edgeley wrote: "Judging by the success of its predecessor I expect *Operation Thunderbolt* will make a killing." Robin Hogg from *Newsfield* enthused about the extra firepower: "The carnage with just one gun was pretty phenomenal but with two it's out of this world! Expect this to be at the top of the 1989 Xmas software charts for whoever gets the licence. It's a 99 per cent certainty it'll be Ocean."

Robin wasn't completely right. Ocean did pick up the licence, of course, but *Operation Thunderbolt* wasn't a Christmas chart-topper. It debuted in fifth position on the all-formats chart over the festive period, with Ocean's conversion of another Taito coin-op, the fantastic *Chase HQ*, racing to the top spot. The versions themselves were a mixed bag. The Amiga and ST versions, coded by Ocean's John Brandwood, were commendably close to the original. On the other hand the 8-bit versions were lacking, perhaps due to added complexity of the coin-op. Andrew Deakin returned to code the Spectrum and CPC versions and the results were a little messy, particularly during the 3D stages. The C64 version, meanwhile, was an infamous misfire due to the original coder exiting the project late in the day and members of Ocean's in-house team having to pick up the pieces. Given the circumstances it wasn't as terrible as it might have been.

In the years following the release of *Operation Thunderbolt* Taito would release several more gun games including the sci-fi-themed *Space Gun* (1990), the four-player *Gun Buster* (1992) and cops 'n' crims shooter *Under Fire* (1993). Yet Taito wasn't done with the *Operation* series and in late 1994 it would attempted to resurrect it with a two-shot salvo.

The first was a belated home version of *Operation Thunderbolt* for the Super Nintendo that introduced a bunch of console-exclusive features. In a nod to the 'Japanese' version of *Operation Wolf* you could choose the order in which you played the initial stages. You could also select from six different soldiers and it was all a bit pointless anyway as the characters you picked had no effect on the game. The stages were straight from the coin-op but it wasn't arcade perfect. Perhaps tellingly the game was not released outside of the US.

Then, almost six years after the release of *Operation Thunderbolt*, the third game in the series hit arcades. With the title *Operation Wolf 3* you might think it was a follow-up to the earlier games, but it was an in-name-only sequel. Roy and Hardy were gone, replaced by male and female commandos codenamed



» [SNES] The SNES version of *Operation Thunderbolt* features multiple characters and an expanded backstory.



» [Arcade] Helicopters are tough, particularly armed ones. Take them down with a carefully aimed rocket.

"Operation Wolf 3 was like a return to the staid shooting gallery games of old"

Special thanks to Steve at ArcadeArtwork.org for supplying the original arcade artwork



TIGER TAMED AND MAMED

You may soon be able to emulate the final game in the series

Operation Tiger is the least well-known entry in the series and that's largely because it's unsupported by MAME. However MAME developer Ville Linde is currently looking to change that. He says: "The game seems somewhat rare and forgotten so there's definitely value in getting it running. It runs on a PowerPC-based hardware and I tend to handle most of the PowerPC systems in MAME. It also shares many hardware features with other Taito systems of the time which makes it interesting to work on."

To date Ville has managed to get the attract mode running but there's still some obstacles to overcome. "There's an emulation bug that causes the game to lock up more or less randomly. Once that's fixed the game should be close to a playable state. Sound emulation also need implementing. As with all emulation things it's hard to predict when it all comes together. Often a small discovery can lead to rapid progress over just a couple of weeks. Hopefully we'll see more improvements later this year."

For progress updates follow @VilleDevs on Twitter.







» [Arcade] *Operation Wolf 3* opens with a surprisingly sedate shoot-out in a factory.

Hornet and Queen Bee. It wasn't the usual do-or-die mission behind enemy lines either, as this time a radical group was holding the world to ransom – or as the attract mode put it: "Huge force of terrorists 'Skull' occupied some island they are armed with nuclear weapon." Righto.

The game itself took place over six static scenes where guys in brightly-coloured garb would pop into view and open fire. The reason for their gaudy attire was due to the graphics – yes, they were digitised, and the colours helped them stand out from the backgrounds. Digitised graphics don't age well, as we know, but even back in 1994 *Operation Wolf 3* looked ropey. Midway's *Terminator 2* gun game did it before and did it better. Two positional guns were once again used, but they were now plastic and similar to those seen on *Space Gun*. One nice touch was the red slider on the barrel which you used to fire grenades, pump-action fashion. In another change players were given unlimited ammo, meaning you could hold down the trigger and unleash a hail of bullets, only pausing to reload.

***Operation Wolf 3* was like a return to the staid shooting gallery games of old. Indeed, it even featured a** bonus scene where you had to shoot glass bottles and clay pigeons. It was a case of wolf by name not by nature, and it fell far below the ranks of the magnificent original and its worthy sequel. The game wasn't ported to a single home system, which isn't surprising, really.

At this time gun games were becoming more popular than ever, with franchises like *Virtua Cop* (1994), *Point Blank* (1994), *Time Crisis* (1995) and *House Of The Dead* (1996) becoming mainstays in the arcades. Taito wasn't going to be left out and in 1998 released the fourth game in the series, *Operation Tiger*. Aiming to stand out, the deluxe version featured a massive 50in screen and the Uzi-style guns made a welcome return. The game also ran on Taito's new PowerPC hardware so the visuals were given a welcome boost. This time you played captured soldiers tasked with escaping from enemy territory while busting out the rest of your team. The action unfolded over the usual six stages.

Although more enjoyable that the third game, *Operation Tiger* didn't make a huge impact and these days it's undoubtedly the least well-known game in the series. Unlike the rival shooters mentioned above it received no home conversions and it isn't even possible to emulate it in MAME at present. Hopefully that will soon change and more people will at least be able to revisit *Operation Tiger*.



» [Arcade] *Operation Tiger*, the fourth and final game in the series, debuted in arcades in 1998.

Nothing of real note has happened to the series since 1998. In 2005 *Operation Wolf* and *Operation Thunderbolt* were added to the *Taito Legends* collection that appeared on PlayStation 2, Xbox and PC. Then in 2008 the NES version of *Operation Wolf* was added to the Wii Virtual Console, but it was disappointment all round as this already average version didn't even support the Wii Remote – despite the original game supporting the NES Zapper. But, let's be honest, even if it did work with the Wii Remote, waving a plastic stick around would be no way to play *Operation Wolf*. Indeed, you could argue that *all* of the home versions are pretty pointless because, regardless of quality, none can ever replicate the feeling of playing the coin-op with its authentic-feeling gun controller.

That desire for the true arcade experience has led to *Operation Wolf* (and to a lesser extend its sequel) becoming very popular with coin-op collectors, joining such wish list favourites as the Atari *Star Wars* games, Cinematronics LaserDisc titles and Sega sit-down cabs. If you've got your own personal arcade then it surely needs a gun game, and few gun games are as imposing or as iconic as *Operation Wolf*. *

Super Monaco GP

When Sega brought its sprite scaling technology to bear on the most iconic track of the Formula One season, the result was a true racing classic. Nick Thorpe gears up to take on the challenge of *that* hairpin…

If Retro Gamer had existed in 1989, it certainly wouldn't have covered many games – but Sega's original *Monaco GP* might well have been one of them. The 1979 racer was Sega's last arcade game not to use a standard CPU and was a pretty popular early take on the racing genre, receiving an updated version in the form of *Pro Monaco GP*. For the tenth anniversary of the original *Monaco GP*, Sega returned to the concept with the X Board technology originally developed for *After Burner* and completely blew players away with *Super Monaco GP*.

Super Monaco GP takes place on a fictionalised version of the famous Formula One course – while it boasts many of the iconic features including the hairpin turn, the chicane and the tunnel, the track layout is entirely original. Never mind the fact that it isn't actually authentic, it certainly delivers on the idea of driving the famous circuit. Likewise, the rest of the game tries to stick as closely to the Formula One experience as possible within the confines of an arcade cabinet, of course. After choosing between automatic, four-gear and seven-gear transmission, you're thrust straight into a qualifying race on a short version of the course. Beat it in less than 45 seconds and you'll hit the main race, with better times earning a higher position on the grid.



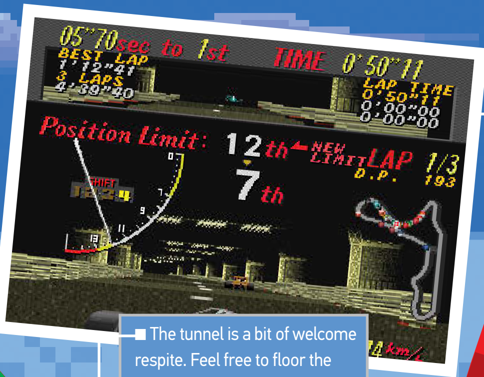
» [Arcade] The tunnel is a great place to overtake thanks to its relatively gentle left curve.


» [Arcade] Where you end up on the starting grid has a huge bearing on how well you'll finish.

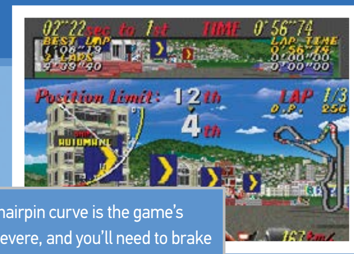


Playing Tips

Think of us as your friendly pit crew, guiding you through the streets of Monaco…



■ The tunnel is a bit of welcome respite. Feel free to floor the accelerator, as you'll only see a gentle curve in here.



■ The hairpin curve is the game's most severe, and you'll need to brake hard for it. Get your speed down to around 210KM/h.

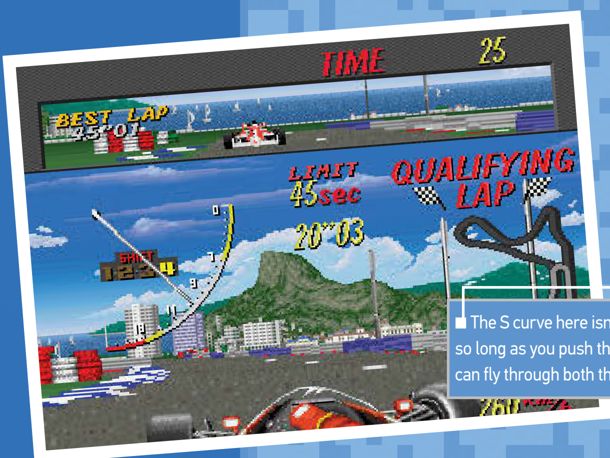
■ This turn is deceptive – you'll need to slow down, but it's better to ease of the accelerator a little rather than pumping the brakes.

■ One last surprise awaits you in the form of a quick turning sequence. It looks severe but is actually quite easy to steer through.



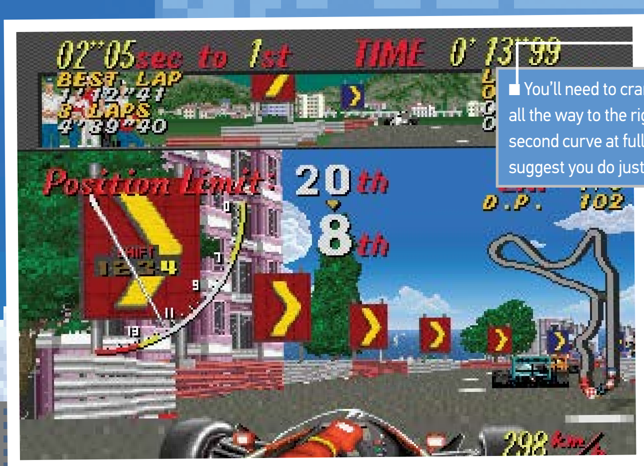
■ If you're qualifying, engage the brakes here for a sharp right. On the full course, be ready to take on rapid turns through the chicane.





■ The S curve here isn't tremendously severe – so long as you push the wheel all the way, you can fly through both the left and right turns.

■ The first turn is nice and gentle – you can take it at full speed and use a relatively light touch on the steering wheel.



■ You'll need to crank the wheel all the way to the right to take the second curve at full speed, so we'd suggest you do just that.





» [Arcade] Crashed cars remain as hazards on the track, requiring careful driving to avoid.

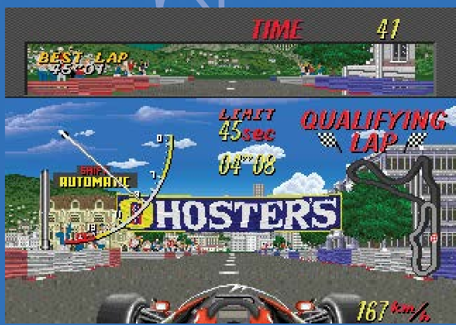
▶ Where most arcade racing games determine failure with the use of a time limit, *Super Monaco GP* instead uses a position limit. At the start of a race you'll have to stay above 20th place in order to keep racing, but at each checkpoint the limit is changed – first to 16th place, and then progressively higher until it either reaches your current position or third place. Once the limit has reached your current position, it'll only increase if you overtake another racer. If you fall behind the limit, you'll be given a short grace period to fight back into position before falling victim to the dreaded Game Over screen. If you manage to finish the race in third or higher, you'll then be given an expert challenge – another race in wet conditions, which naturally screws up your handling and makes the scenery somewhat greyer. It also makes the other method of failure, a major crash, far more likely.

There's not a lot of content there, but what set *Super Monaco GP* apart from the competition was its technology. It certainly played well but it looked truly astonishing, thanks to the huge number of smooth scaling sprites on screen at all time, and everything from the trackside advertising to the radio communication from your pit crew screamed Formula One. You could see approaching racers in the rear-view mirror (a very unusual feature in those days), and you'd have to avoid the crashed cars of unlucky drivers. If you were lucky enough to play in the deluxe 'Air Drive' cabinet, you'd feel your seat moving and have to fight the steering wheel thanks to a built-in compressor. However, smaller arcades usually plumped for the cheaper twin sit-down or standard upright cabinets, which were still a good draw given the game's merits.

The coin-op received high praise from the magazines of the day, despite the high price of 50p per credit. *ACE* commented that "your initial reaction is likely to be one of total disbelief as a sprite-based screen moves with more colours, smoother and faster than you could ever believe." *Computer & Video Games* gave it 94%, calling it "simply the best racing simulation game yet seen in the arcades," and would later rank it second (behind *S.T.U.N.*

» [Arcade] The colourful visuals expected of Sega's arcade heyday are prominent in *Super Monaco GP*.





Court Circuit

How the quest for authenticity cost Sega major money

The initial arcade release of *Super Monaco GP* featured some advertising hoardings that were surprisingly similar to those of real-world Formula One sponsors – recognisable brands like Ford, Canon and Foster's became Fodo, Conan and Hoster's. David Rosen, Sega founder, contended that the inclusion of such advertising hoardings were "simply a game designer's innocent attempt to mimic real-life locations as scenery to enhance the realism of gameplay." Unfortunately for Sega, the inclusion of Marlbobo – sorry, *Marlboro* – attracted the attention of brand owner Philip Morris USA, which stated to newspapers, "We would not grant such permission to use any of our cigarette logos in any videogame, especially those played by minors." The first contact was made on 20th November 1989, and by March 16th 1990 Sega had agreed to remove the references from the game and produced a conversion kit to do so, featuring new decals and two replacement ROM chips.

However, a number of units showing the unaltered branding persisted in the wild and on 21st February 1991 the tobacco giant sued, demanding unspecified damages as well as the recall of all machines featuring the logo and the handover of all printed materials bearing the logo. A settlement was finally reached on 7th May 1992, and it was a costly deal for Sega. The company was required to offer its existing conversion kits free of charge, and since making the switch wasn't worth the trouble for distributors, owners and operators before, Sega offered $200 per converted machine – payable upon receipt of the old infringing chips, naturally. What's more, the terms of the settlement required Sega to spread awareness of the offer by placing full-page colour adverts in the coin-op trade magazines *Replay* and *Play Meter* for three consecutive months. Ouch.







"I don't remember much reference material at all"
David Shea



» [Arcade] It feels good to pass the spectators in the stand – especially if you're in first place.

Runner) in its rundown of 1989 arcade releases. It did strong business in a crowded driving market too, posting strong earnings against polygonal competitors like *Hard Drivin'* and *Winning Run*. Even legal threats over the unauthorised use of the Marlboro logo couldn't stop the game.

Soon afterwards, *Super Monaco GP* began to make its way to the home machines of the day. None of them could hold a candle to the astonishing visuals of the arcade game, but in an unusual step for the era significant content was added to every version. For its own versions on the Master System, Mega Drive and Game Gear, Sega included a full 16-race championship mode with tracks from the 1989 Formula One season. Each allowed you to customise your car, and the Mega Drive version went a step further by allowing you to choose a team, choose rivals and defend your title. When they arrived in the autumn of 1990, they experienced strong sales – both the Master System and Mega Drive versions immediately entered the charts in the top ten. While the 8-bit version quickly dropped off the radar, the Mega Drive version peaked at second place and hung around the top ten position for nine consecutive months. A sequel soon followed for Sega's consoles, endorsed by the legendary Ayrton Senna, which was also well-received but attracted criticism for its modest improvements over the original.

US Gold had the publishing rights for home computer versions, and outsourced the development duties to Probe Software. These versions were released in the spring of 1991 and each featured four tracks, played under the arcade position limit rules. While they weren't quite as popular on their formats as the Mega Drive version was, these also sold strongly and hung around the charts for months. If that wasn't enough, *Super Monaco GP*'s popularity lasted long after its initial release thanks to its inclusion in compilations. US Gold added it to Super Sega for the home computer formats, and Sega included it in *Master Games I*, *Sega Classics Arcade Collection* and no less than three Mega Games cartridges.

Given the game's contemporary popularity and early re-releases, it's kind of strange that Sega seems to have forgotten the game entirely after the mid-Nineties. For a company that always seems keen to showcase its back catalogue through compilations and download services, it's a surprise that *Super Monaco GP* has never received any kind of retro release – especially given that other X Board games have been emulated. If we had to guess why, we'd say rights issues are probably the reason – with real-world Formula One tracks in the Mega Drive version and the ▶



» [Arcade] Added effects like flying sparks really captured the feel of driving high-powered vehicles.

Q&A: David Shea

The veteran coder recalls squeezing Super Monaco GP into the Spectrum



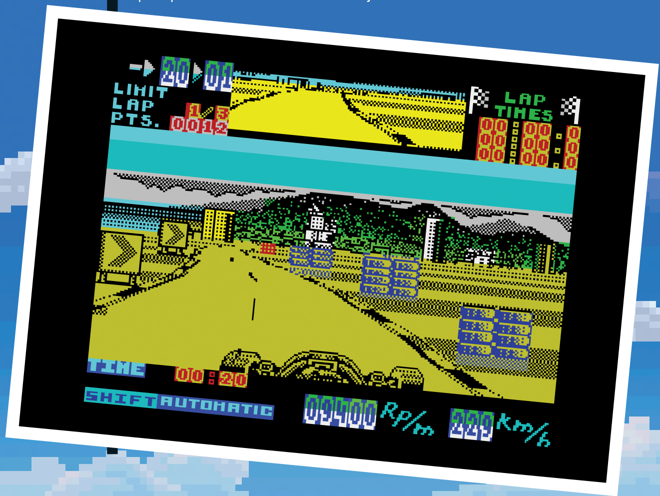
Had you played *Super Monaco GP* in arcades before you got the conversion job? If so, what did you think of it?
Not really. The first I knew was Fergus from Probe Software taking me to a pub for lunch, and showing me the arcade machine – and offering me the conversion. Before then I don't think I'd been in an arcade for ages. My first thought was, "Oh, a racing game, never done one of them." The second was, 'Holy f**k, how am I going to get that on the Spectrum?'

What reference materials did you have access to for the Spectrum conversion?
I think we just had videos of the game – I don't remember much reference material at all. I can't even remember if we had the arcade machine at Probe. To be honest it was more 'in the spirit' of the original rather than a conversion.

So exactly how long were you given to work on the game?
I think it was a few months. Not sure, since the schedule kinda went tits up because I got a job at MicroProse – I was doing that during the day, and *Super Monaco GP* at night.

What were the major challenges in making a good 3D racer for the Spectrum?
The 3D graphics – no way we could reproduce those. I ended up using an already-used racing code (I can't remember what the game was, I didn't write it – a guy known as ZZKJ) and trying to tweak it to feel right. Not really like the arcade, but just playable…

Which aspects of the game were you most pleased with?
I don't think I was very pleased at all – apart from actually getting it out the door. It was not a high point for me, and I decided to leave racing games to people who could do them justice.



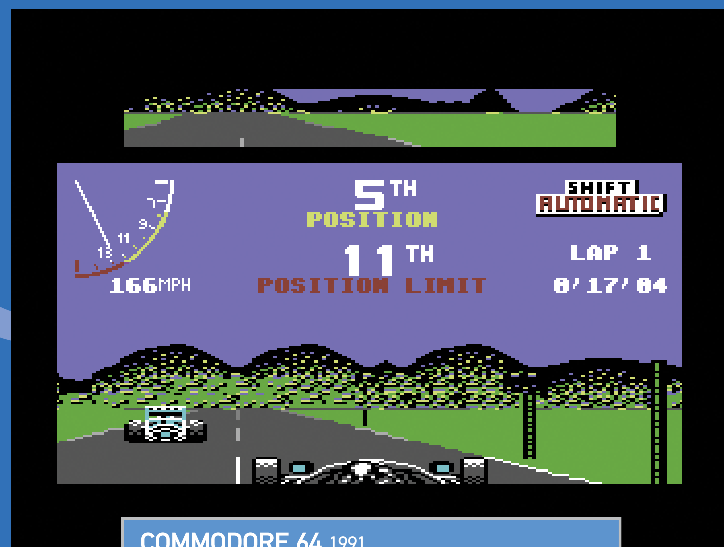
Conversion Capers

Super Monaco GP has found its way onto a number of different systems, but which is the one that takes pole position?



MEGA-CD 1993

■ You can only get the Mega-CD version of *Super Monaco GP* on Sega *Classics Arcade Collection*, and it's practically the same as the cartridge edition – the only real difference is a slight improvement to some sound effects. Still, it's cheap and it shares a disc with *Columns*, *Revenge Of Shinobi*, *Streets Of Rage* and *Golden Axe*.



COMMODORE 64 1991

■ The Commodore 64 doesn't do too badly with *Super Monaco GP*, but the road viewing angle is pretty extreme and the handling is arguably a bit too easy. It's fine if you get it in a bundle of games, but not worth seeking out individually – there are better arcade racers for the trusty breadbin.



AMIGA 1991

■ Commodore's 16-bit machine turns in a pretty good racing game here, even if it's not a tremendous replica of the arcade game. The faux-scaling is pretty good and everything is well-drawn. The only fly in the ointment is the ease with which you can achieve a fatal crash – you'll struggle to even qualify without some practice.

MEGA DRIVE 1990

■ This version plays as well as the arcade game, but can't replicate its dynamic visuals – in fact, it offers less trackside detail than its 16-bit peers. However, it should be the version of choice for most players – as well as an excellent world championship mode, it's the only conversion to let you exclusively play the Monaco tracks like the arcade game.





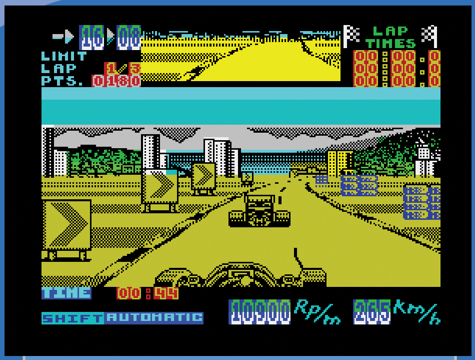
ATARI ST 1991

■ The audio is slightly weaker than that of the Amiga version, and movement is ever so slightly less smooth too. However, we'd rather play *Super Monaco GP* on Atari's machine for the simple reason that it's harder to write off your car. Steering can be a little jerky, but that's easily resolved by changing the controller sensitivity option.



GAME GEAR 1990

■ This one's a lot like the Master System game, but it runs a lot faster. That fixes one problem, but the awful handling remains – you'll be back in business quickly after your frequent spin-outs, but they feel impossible to avoid. It's arguably the weakest of the three games that accompanied the Game Gear at launch.



ZX SPECTRUM 1990

■ David Shea isn't a fan of this conversion, but we think he's being a bit harsh – it's actually not too bad at all, even though it does feel rather sluggish. The use of colour is good and thanks to the retention of the first-person view and position limit, it retains the character of the arcade game that's missing in Sega's 8-bit versions.



AMSTRAD CPC 1991

■ This conversion looks great in still screenshots but struggles to convey a sense of speed – you could be going at top speed or merely half of that and barely be able to tell the difference. The frame-rate is low too, making the game look jerky and feel particularly unresponsive. It's probably the worst of all the *Super Monaco GP* versions.



MASTER SYSTEM 1990

■ This just doesn't feel like *Super Monaco GP* at all. Quite apart from the fact that the view has shifted to a third-person perspective, there's very little sensation of speed and it's all too easy to spin off the track at the merest hint of a corner. There's also a mandatory split-screen feature, whether you're playing with one or two players.

legally contentious advertising banners of the arcade version, both of the ones players would reasonably expect to see could well be off limits.

Even though Sega no longer acknowledges it, *Super Monaco GP* remains a strong part of the company's arcade racing heritage. As well as being a shining example of the lost graphical art of sprite scaling 3D games, it's still an exciting and challenging game that can entertain you whether you have minutes or hours to spare. The position limit is a great example of how to design for the genre without resorting to time limits, and the home versions stand as some of the earliest examples of a company recognising that a simple recreation of the coin-op experience was no longer enough to satisfy players. We wouldn't trade one of Ayrton Senna's championship-winning McLarens for a modern Toro Rosso and likewise, while *Super Monaco GP* has been surpassed we wouldn't trade it for many of the arcade racers that followed. ★

T.L.L. – Tornado Low Level

"YOU DON'T OWN THAT PLANE, THE TAX PAYERS DO!"

» RETROREVIVAL

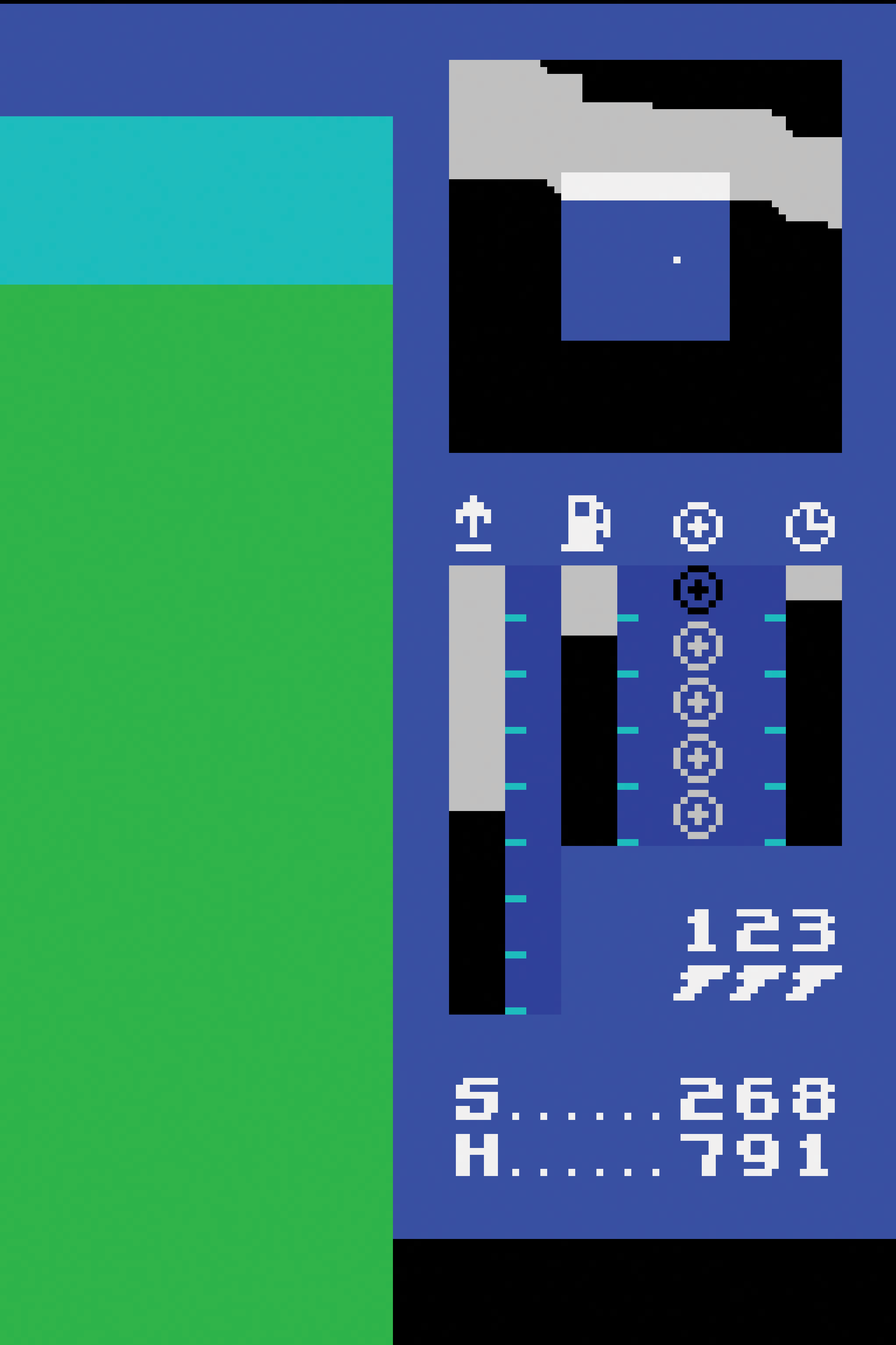


» ZX SPECTRUM » COSTA PANAYI » 1984

It's weird to find a game themed around military combat that doesn't give you any active opposition, but that's exactly what *Tornado Low Level* does. You'll have to beat the clock, watch your fuel gauge and try not to crash, but you'll never get shot down by an anti-air emplacement or an enemy fighter. To be fair, the game doesn't need enemy combatants, as you'll die easily enough anyway.

Every time you die in *Tornado Low Level*, it's because you tried to be just a little too clever and take one risk too many. You thought that you could make one more target before landing to refuel. You thought you'd initiated that turn soon enough to miss that building. You thought you could climb out of that low-level flight just in time to avoid slamming into that tree. On each and every occasion, you were wrong. You were defeated by the environment or the fuel gauge, but most of all you were defeated by yourself. That's why *Tornado Low Level* is so much fun, though. Because *you're* the problem, it's not easy to feel cheated when you die – and as a result, you always feel you can do that bit better. Though it's not a game that I played as a kid (I did my 8-bit computer gaming on a hand-me-down C64), *Tornado Low Level* exemplifies the design that will keep me playing retro games for as long as I play videogames – it's simple, it's addictive and it's challenging, even if nothing does fire at you. *




123
S......268
H......791

40 Years of Apple

As Apple prepares to enter its fourth decade, Craig Grannell explores key products from its history, the impact they had on gaming, and the sometimes surprising impact that gaming had on Apple itself



Given Apple's gargantuan profits and global reach, it's easy to forget it started life as two people in a garage. Much of the tech wizardry back then was down to Steve 'Woz' Wozniak, while Steve Jobs was tactician and visionary.

The first breakthrough occurred in 1976, with what would become the Apple Computer 1 (later referred to as Apple I). The machine was offered to HP, which declined, and so Apple Computer was born. Apple already was 'thinking different', its debut hardware being the first single-board computer, sold fully assembled and utilising a television for output.

But Woz was thinking bigger. Inspired by his work on arcade games, he wanted to create a computer that was faster, more colourful and noisier than anything else. Ultimately, as he recalled in a 1986 interview with *Call-A.P.P.L.E.*: "A lot of the features of the Apple II went in because I had designed *Breakout* for Atari. I had designed it in hardware. I wanted to write it in software now."

With Apple rarely being equated with gaming, it's surprising to discover its foundations rest on one man's desire to 'program a BASIC version of *Breakout*'. But soon Woz was tinkering with his computer, adding colour, BASIC commands, paddle controllers, and sound. Building primarily for himself, he was also kickstarting a computing revolution – the Apple II captured the imagination of wannabe home programmers, and the machine's initial success bankrolled Apple for years.

Prior to founding EA, Trip Hawkins was director of strategy and marketing at Apple Computer, and recalls the Apple II fondly: "It was so far ahead of its time that photographers setting up images of the future would include an Apple II in the shot because it looked like it came from the future, not the present!" *Ultima* creator Richard Garriott was similarly impressed. He'd previously battled with teletype terminals, but then found himself sat before an Apple II: "I was in wonder. Suddenly, instead of invoking a command and waiting minutes for it to process and print the results, I had a computer that in real time could visually display to me any fantasy worlds and other fantastical ideas I could think about to program. I immediately saw it as the key to the future – or my own future, at least!"



There were, naturally, drawbacks. Woz's products had their quirks, and the Apple II needed someone to

make the most of it. "You had to be a great assembly language programmer and that kind of person is often not a great designer or artist," mulls Trip. "Brilliant talents like Bill Budge could envision bigger ideas and were able to execute in an interdisciplinary fashion, as he did with the revolutionary *Pinball Construction Set*."

However, many programmers found much of the pleasure in using an Apple II arrived from working out how to coax tiny gaming universes out of the machine. "It was the first computer with decent graphics yet also simple enough that you could hold a model of the entire machine in your head," explains *Wizardry* creator Robert Woodhead. "So Apple II programmers knew everything about the platform, and part of the fun was figuring out clever ways to 'cheat' and get the machine to do stuff. One example was Woz's hack of using software to do all the expensive stuff needed to run a floppy disk controller, making the hardware simple and cheap – and then his 're-hack' that increased disk capacity entirely via code changes!"

At the time, no-one felt constrained by the perceived limitations. *Bard's Tale* creator Michael Cranford ponders it "was what it was", and that "having a fixed, limited canvas can be an inspiration to something better". He notes that with today's hardware, the lack of limits make it tough to push hardware and inspire people. Similarly, Jon Romero enjoyed the Apple II's "peculiar limitations", which he reckons dictated what you could create. This gave games on the system a certain character, utilising individual techniques that could "literally provide you with unique identification of a programmer".

The hardware continued to evolve, but internal politics eventually derailed the Apple II. An attempt at a business-focussed follow-up, the Apple III, was ▶

"Apple II programmers knew everything about the platform"
Robert Woodhead





» The childhood home of Steve Jobs has now been added to the list of historic sites in Los Altos.

▶ a failure. And although the Apple II line eventually transformed into the next-generation Apple IIGS, it lacked a champion and was superseded by the Macintosh. Even so, that didn't stop people wanting to create games for the Apple II in its twilight years. Having used his Apple II to create *Karateka*, Jordan Mechner unveiled *Prince Of Persia* on what was considered a dying platform. His reasoning? "The Apple II was a platform I understood – it was a lovely machine."

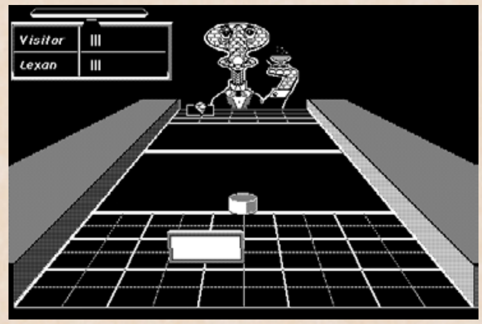
The early days of the Macintosh were fraught with problems. Even today it's hard to get a handle on precisely which events occurred and in what order, on account of the people involved having very different recollections of what actually happened. The basic facts, at least, are that the project was started by interface expert Jef Raskin, who wanted to create a consumer-oriented low-cost computer named after his favourite apple, the McIntosh. Over time, the scope of the Mac shifted, Steve Jobs jumped on board from the beleaguered Apple Lisa project (causing Raskin to quit), and the boxy little Mac finally said 'hello' in 1984.

Although the Mac was different from Raskin's concept, aspects of his vision remained intact. Inspired both by technology developed at Xerox PARC and also in-house at Apple, the Mac boasted a revolutionary visually-oriented operating system, based around a now-familiar desktop with windows and folders. The all-in-one main unit had a small but sharp 512x342 pixel display. And the only things you needed to plug in were a power cord, keyboard and mouse.

Much like the Apple II before it, the Mac offered a bold take on the future of computing, and people couldn't help but be seduced. "It struck me as a qualitative shift," recalls Christopher Gross, who designed air hockey titles *Shufflepuck* and *Shufflepuck Café* for the system. "The graphical interface and mouse allowed a shift from 'asking the computer to do something' to just being able to do it." In other words, this was a computer designed to enable users to perform actions directly, rather than type commands and hope for the correct interpretation to take place. Christopher was so taken aback that he quit a computer science grad program, because "programming for the Mac was so much more interesting and real than anything I was doing in school".

Quickly, though, the Mac found a niche and it certainly wasn't games. "Macs soon became mostly used for desktop publishing and artwork," remembers Jon. "They became typecast." And in wanting to stop its computer from failing, Apple did little to dispel this notion, reasoning that any focus on games might find its hardware dismissed as a toy. In a piece of insight mirroring how developers initially found getting to grips with the iPhone tricky, Christopher notes those few who did start working on Mac games rarely tried to innovate with the controls they found available to them: "Having a mouse by default didn't really shake things up. I remember being disappointed at how few games were made for the Mac, but also how few used the mouse beyond the most obvious ease of being able to directly point at things on the screen." This was in part what drove Christopher to use the mouse as a games controller in *Shufflepuck*. The game was also 'blessed' with the happy accident of 'weight' being afforded to the puck through a time delay in the graphics that occurred whenever a sound played as the puck was hit!

> "I remember being disappointed at how few games were made for the Mac"
> Christopher Gross



» [Mac] *Shufflepuck Cafe* was a killer app for the early Macs.

Bill Dugan, at the time a producer at Interplay, also recalls issues with Apple's lack of interest and the system's reliance on the mouse. "Computer games were developed on a lead platform, released immediately, and ported to whatever other platforms would sell," he begins. "The Apple II or C64 was usually the lead platform in the USA, and you'd then see ports to the PC, Mac, and other systems. Publishers would want ports to be fast and cheap."

For some platforms, a low-cost approach worked reasonably well, but this was less so for more powerful platforms, due to the expectations of those who owned them. And with the Mac, the default interaction was



Selective Timeline

1 APRIL1976
■ The now-corporate giant that is Apple is founded by Steve Jobs, Steve Wozniak, and Ronald Wayne.

11 APRIL 1976
■ Apple Computer 1 (later known as the Apple I) is released, each unit hand-built by Steve Wozniak.

10 JUNE 1977
■ The Apple II is launched, and its success bankrolls Apple for a decade, giving the company breathing space.

19 MAY 1980
■ The Apple III hits the market and fares poorly, not least due to iffy Apple II compatibility. It was later reintroduced in 1981.

19 JANUARY 1983
■ The Apple Lisa launches. The UI was revolutionary, but the computer was sluggish, and the sales were poor.

22 JANUARY 1984
■ The Ridley Scott-directed *1984* ad plays at Super Bowl XVIII. It's hailed as one of the best adverts of all time.

Key Players

The people who shaped Apple

STEVE 'WOZ' WOZNIAK



■ Cofounder, engineer

An amazing engineer, Woz was the brains behind the Apple I and Apple II computers. Although still technically an Apple employee, Woz has had little to do with Apple since the mid-Eighties.

STEVE JOBS



Photo of Steve Jobs © Matthew Yohe

■ Cofounder, CEO

Steve Jobs saw the potential in Woz's work, and became Apple's vision and taste arbiter. Ousted in 1985, he went on to found NeXT, he then triumphantly returned to Apple as CEO in 1997, reinvigorating a then-flailing company.

JEF RASKIN



■ Interface expert

Although many people were responsible for the original Mac, Jef Raskin instigated the entire project, noting computers at the time were for geeks, and wanting to create something that was much more usable and friendly.

SUSAN KARE

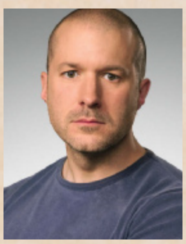


Photo of Susan Kare © R. J. Muna

■ Graphic designer

Graphic designer on the original Mac computer line, Susan Kare created the icons, typeface and interface conventions that permeated throughout the entire tech industry and that are still in use today.

JONATHAN 'JONY' IVE



■ Designer, Chief Design Officer

An Apple employee since 1992, British-born Jony Ive flourished after Steve Jobs returned. Chief designer of the iMac, iPod, iPhone and more, Jony Ive's creations influenced the entire tech industry.

pointing and clicking, not keyboard commands. Direct game ports to Mac therefore had a tendency to feel alien, lacking a mouse interface, or having a 'fake' one awkwardly welded on. "You'd essentially click on keyboard command equivalents. In the lower levels of the code, the programmer could then pretend there was no mouse at all, and use the same interface code that had been written for a non-mouse original," explains Bill.



The display was a brighter spot. Christopher notes that it was "high-res, which allowed a relatively high mouse resolution", and Bill says its monochrome nature forced anyone porting games to take care: "The Mac's black-and-white monitors made it unconscionable to copy and paste graphics from another platform. You'd have ended up with an awful, lumpy, dithered mess of unacceptable grey. So pretty much everyone recreated graphics for the Mac." Having noted all these things, and the Mac press howling at terrible ports, Interplay hit upon the idea of making an effort on presentation, UI and graphics, thereby making games more Mac-like and attractive for that audience. The MacPlay label was born. But, from a games perspective, the port was something the Mac would now only rarely escape from.

As years passed, the Mac solidified its hold on desktop publishing and creative industries, but ceded most other ground to PCs. "And as a big fan of the Mac and an avid games player, I became frustrated I couldn't play more games," says Peter Tamte, who co-founded MacSoft to redress the balance. Peter's team approached publishers to license rights and bring their games to the Mac. "And after showing how these games generated profits for their original publishers, and brought in new fans without diluting their brands or PC revenues, we were able to bring more and more games to the Mac from a wider selection of developers."

Apple wasn't blind to these issues, and there had been efforts to boost Apple's profile in gaming. Craig Fryar worked in evangelism at Apple during the Nineties and exposed senior management to key games. "When they saw the likes of *PGA Tour* and *Sim Ant*, they were amused, and the point wasn't lost on them that games could show off a system's horsepower."

Craig says things started changing, and he was able to secure hardware to feed to developers, along with demonstrating new technology in exchange for ▶



» [Mac] *Prince Of Persia* had stunning animation. A colour version was eventually released on later Macintoshes.



24 JANUARY 1984

■ The first Mac arrives, providing the foundation for Apple's subsequent personal computing endeavours.

17 SEPTEMBER 1985

■ Steve Jobs resigns from Apple, and starts work on new venture NeXT, Steve would return to apple in 1997 as CEO.

15 SEPTEMBER 1986

■ The Apple II hits its zenith with the IIGS, which blends the Apple II and Mac experiences and uses a colour GUI.



2 MARCH 1987

■ The Macintosh II arrives, for the first time bringing colour displays to the Macintosh line of computers.

17 MARCH 1988

■ Apple sues Microsoft for copyright infringement relating to the Mac OS and Windows interfaces.



20 SEPTEMBER 1989

■ The Macintosh Portable becomes Apple's first battery-powered portable Mac. It didn't sell to well despite critical acclaim.



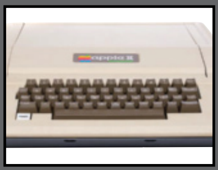
The influence of Steve Jobs

Steve Jobs impact on gamers is still felt today. Here are just a few of the developments he was involved in…



Apple Macintosh

The Macintosh was a huge influence during the Eighties, and has continued to evolve. At the time it was the first commercially succesful computer to feature both a mouse and a GUI.



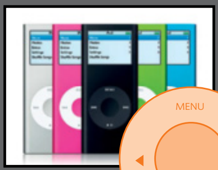
Apple II

The Apple II was first released in June 1977 and had various revisions. Many American developers, such as John Romero, Richard Garriott and Jordan Mechner learned to code on it.



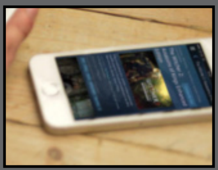
Pixar

Formed in 1979 as the Graphics Group, Steve Jobs bought Pixar from Lucasfilm in 1986, eventually selling it to Disney for roughly $7.4 billion, making him Disney's largest shareholder.



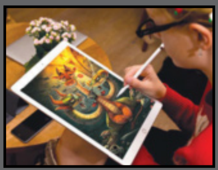
iPod

The iPod not only revolutionised the way we listened to music, but also the music industry itself. As with many Apple products it was continually refined over the intervening years.



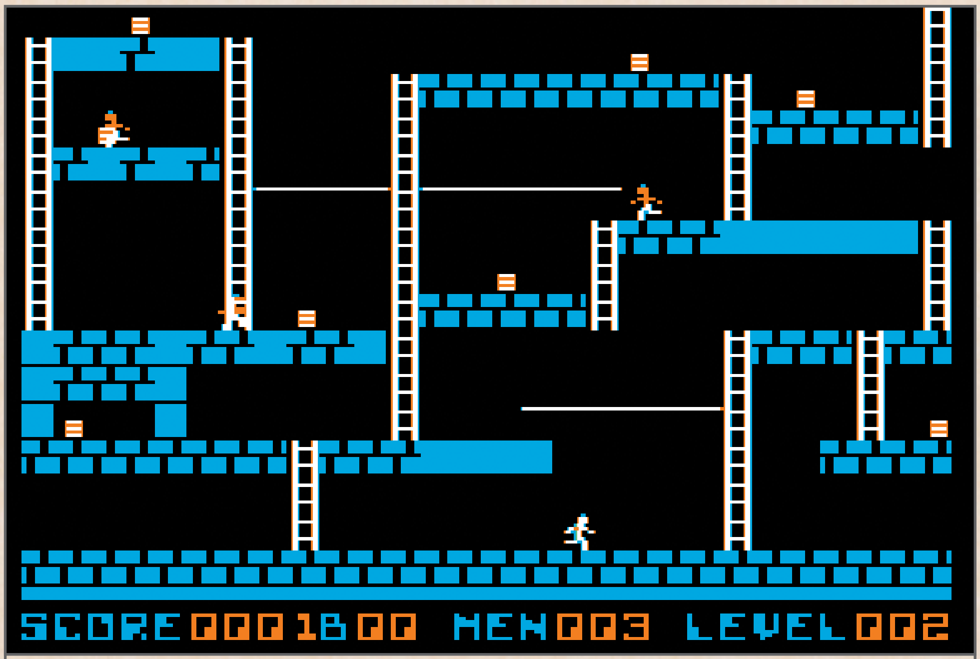
iPhone

The iPhone had a massive impact on the mobile phone market, and was one of the first devices that genuinely allowed you to play 'proper' videogames without any fiddly buttons.



iPad

Apple's iPad wasn't the first tablet device, not by a long shot. It did, however, change the way tablet devices were perceived by the general public. It has gone on to sell millions of units.

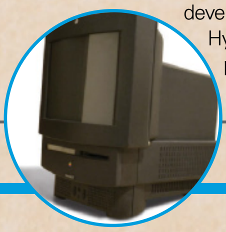


» [Apple II] The superb *Lode Runner* is one of the Apple II's most recognisable games.

games incorporating key features. One example was *Hellcats Over The Pacific*, a flight sim developed by Parsoft Interactive: "They were shown a system able to support multiple monitors out of the box. In return for them getting the hardware, they created a three-display 180-degree version of *Hellcats*, which was great for showing off the system. We got serious bragging rights, because at the time this just wasn't possible on a PC."

Erik Klein was working as an evangelist at the time, and remembers a slow turnaround in perception. "Games companies fondly remembered the Apple II days, but didn't think they could make money on the Mac. It was a difficult task, because you had new audiences to market to, different channels to sell the product, and different press to woo. But we did prove there was a market, which almost doubled in terms of sales during my time at the company. This was especially the case during the transition to PowerPC chips, which helped the Mac become a powerful system that could run state-of-the-art PC ports."

Although ports remained the most common kind of Mac game, the platform did get the occasional first. Pioneering immersive CD-ROM adventure *Myst* debuted on the Mac, primarily because it had been developed on the platform, utilising HyperCard (a sort of localised proto-web, with a card-based system housing interactive



> "We did prove there was a market, which almost doubled in terms of sales"
> Erik Klein

components) and Apple's QuickTime video technology. Another Mac first was *Marathon*, an innovative and exciting FPS that you'd have usually expected to instead arrive fully formed on the PC.

Bungie co-founder and *Marathon* developer Alexander Seropian remembers being drawn to the Mac because of how visual it was. "I was jealous of all the games you could get on the PC. Gaming on that platform was growing tremendously, and there was this pent-up demand for games on the Mac that wasn't being addressed." Hence *Marathon*? "Well, I'd like to say that was a conscious strategy on our part, but the reality is the Mac was what we used and liked, so we chose to work there out of convenience more than anything else! But the Mac community was very receptive to *Marathon* – we'd travel the country visiting user groups and going to Macworld shows. We met many gamers who helped inform what we were putting into the game."

21 OCTOBER 1991
■ Three new PowerBooks, with dark grey cases and built-in trackpads, provide a blueprint for notebooks.

16 AUGUST 1993
■ Digital assistant Apple Newton is released. Innovative but flawed, it would be axed by Steve Jobs in 1998.

25 OCTOBER 1993
■ Macintosh TV becomes Apple's first crack at integrating computers and TVs. Few are made and sold.

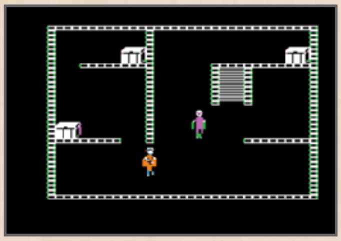
14 MARCH 1994
■ Power Macintosh arrives, based on the PowerPC processor created by AIM (Apple-IBM-Motorola).

28 MARCH 1996
■ Pippin appears to universal indifference. Apple's first stab at gaming hardware is quickly discontinued.

7 FEBRUARY 1997
■ Apple finalises a deal to acquire NeXT, which brings Steve Jobs back to the company he cofounded.

Core gaming

Ten games that defined Apple systems



CASTLE WOLFENSTEIN

■ Apple II ■ 1981

Silas Warner's stealth-based arcade game finds you deep inside a castle full of armed enemies during World War II. Its combination of tense moments, strategy and arcade smarts won it plenty of fans.



ULTIMA

■ Apple II ■ 1981

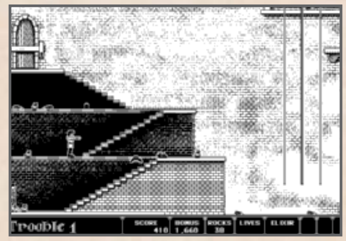
Following up on debut title *Akalabeth*, Richard Garriott used his Apple II to fashion the first step in the *Ultima* series. One of the earliest open-world RPGs, *Ultima* has influenced countless games throughout the years.



CHOPLIFTER

■ Apple II ■ 1982

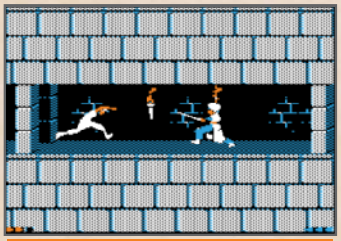
Initially an experiment in creating a controllable helicopter on an Apple II, *Choplifter* soon integrated *Defender*-style rescues. The game's seemingly political nature was coincidental, but spotted by the masses.



DARK CASTLE

■ Mac ■ 1986

This game took advantage of Mac hardware, utilising both keyboard and mouse, the latter used to launch projectiles, and the former for movement. The game shows how the Mac's graphical limitations can still reap rewards.



PRINCE OF PERSIA

■ Apple II ■ 1989

Karateka's take on side-on fighters wowed on the Apple II, but with *Prince Of Persia* Jordan Mechner went one better, your hero carefully working his way through dungeons to save a princess. Realistic animation and challenging gameplay cemented the game's classic status.



MYST

■ Mac ■ 1993

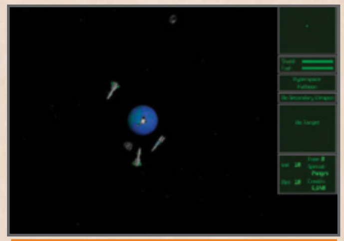
This adventure puzzler is perhaps best-known for being a PC game, but it started life on the Mac. The original was built in HyperCard, and Apple's release of QuickTime part-way through development enabled an extra degree of immersion through the integration of video.



MARATHON

■ Mac ■ 1994

With the Mac still mostly known for serious work in the Nineties, most games were static and staid. *Marathon* bucked the trend, bringing cutting-edge FPS action to the platform, marrying blasting with a detailed plot. Bungie would, of course, go on to create *Halo*.



ESCAPE VELOCITY

■ Mac ■ 1996

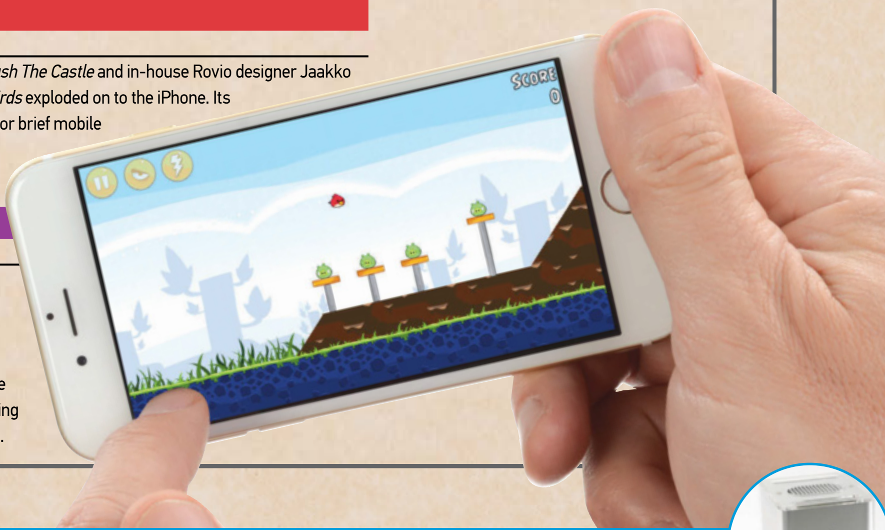
With Mac games being few in number as Apple hit its nadir, space opened up for enterprising indies. One of the best examples is *Escape Velocity*, a space trading game that resembles *Elite*, albeit with a third-person view during the outer-space travel sections and battles.

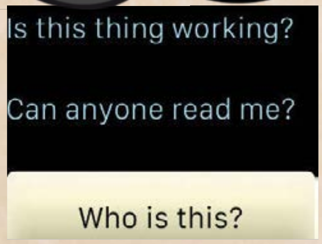


ANGRY BIRDS

■ iOS ■ 2009

Obviously inspired by online flash game *Crush The Castle* and in-house Rovio designer Jaakko Iisalo's designs of limbless avians, *Angry Birds* exploded on to the iPhone. Its bite-sized slingshot gameplay was perfect for brief mobile sessions and touchscreen control, quickly catapulting the game towards iconic status.





LIFELINE...

■ Apple Watch ■ 2015

The first of a new generation, *Lifeline...* is a game that actually works better on Apple Watch than a smartphone. Essentially a *Choose Your Own Adventure* with you assisting a stranded astronaut, the narrative is compelling and has emotional clout. Playing on a watch feels oddly futuristic and natural.



7 MARCH 1997

■ The eMate, based on the Newton, finds Apple attempting to appeal to the education market.

20 MARCH 1997

■ The Twentieth Anniversary Macintosh is released. It's ostentatious, yet foreshadows future consumer tech.

7 AUGUST 1997

■ Microsoft comes to the aid of a struggling Apple, giving it a cash injection and boosting its confidence.

15 AUGUST 1998

■ Apple wows the tech industry with the audacious iMac G3. Its translucent shell becomes a meme.

21 JULY 1999

■ The iMac goes mobile with the iBook, a colourful, friendly notebook with surprising tech smarts.

19 JULY 2000

■ The Power Mac G4 Cube proves a step too far regarding marrying design and computing. Sales are poor.



Pipsqueak

Apple versus its rivals

Pipsqueak
Apple vs. Microsoft

■ Microsoft started out as a Apple ally but Windows drove a wedge between the companies. Apple fumed at Microsoft's perceived plagiarism, but many lawsuits later Apple was almost bankrupt. In 1997 Microsoft injected cash and shored up its ailing rival, seemingly to retain 'competition'. Apple subsequently blazed past, predicting and driving consumer hardware trends in a way Microsoft couldn't match.

Pipsqueak
Apple vs. IBM

■ Big Blue killed any hope Apple had of mainstream success in the Eighties. The PC's arrival in 1981 provided an affordable alternative to anything Apple had to offer. But, over time, the rivalry thawed, showcasing the tangled relationships between tech companies. For years, PowerPC chips from an Apple-IBM-Motorola alliance were found in Macs. Today, Apple and IBM are increasing the iPad's corporate reach together.

Pipsqueak
Apple vs. Samsung

■ One of the oddest modern-day tech relationships, Samsung and Apple are both butting heads and yet are reliant on each other. Samsung still manufactures many Apple device components, and has spent many years merrily being 'inspired' by the iPhone and iPad. Additionally, Samsung's TV ads often rip into Apple, arguing its customers are brainless fools taken in by Apple's marketing machine. Long-term, expect Apple to split entirely from Samsung.

Pipsqueak
Apple vs. Dell

■ One of the most famous tech quotes of all time occurred in 1997 when Dell CEO Michael Dell opined if he was put in charge of Apple he would "shut it down and give the money back to the shareholders". He argues this was misunderstood and that he was mulling from the position of still being Dell CEO. Still, it showcased a stark difference in thinking between the two organisations.

Pipsqueak
Apple vs. Adobe

■ Once, Apple and Adobe were close. But as Apple's grip on the design industry loosened and Adobe became more bullish, cracks appeared in the relationship. This came to a head when Steve Jobs refused to support Flash on iOS, arguing it was unstable technology. Adobe griped Apple was taking away people's freedoms, but, in reality, Flash was terrible on mobile. Apple eventually won the battle, and Flash's presence online is rapidly diminishing.

▶ Far from an also-ran, *Marathon* helped define what a FPS could be. It focusses more on narrative, using levels to tell a story, and had one of the earliest 'free look' systems. Naturally, it became a major influence on Bungie's *Halo*, although it didn't go as far as to revolutionise Mac gaming. Instead, Mac ports would increasingly arrive when PC originals hit the bargain bin, and Apple in 1996 made a misstep with its only full foray into Mac-based dedicated gaming hardware, the risible Pippin, which was poorly architected, overpriced and lacking in developer support and consumer interest.

In fact, around that time it looked like Apple might vanish entirely, and buy-out rumours regularly circulated. Pangea's Brian Greenstone recalls "developers left in droves," which was good for Pangea and the few others who "became big fish in a small pond for a while". But questions started to be asked whether Apple could recover. Its future looked bleak.

It was co-founder Steve Jobs who arguably saved Apple from the brink. Having in 1985 quit the company he founded, he returned, ruthlessly culled a messy product line, and set Apple on the course it still finds itself on today. This sleeker, leaner Apple prized high-quality hardware that appealed to consumers and pros alike. From a games perspective, though, it's arguable the Mac never bounced back. "By the time Apple recovered, there was no-one left, except for a few companies porting two-year-old PC games, and a few of us still making original Mac games," says Brian. "Games development had gotten so expensive and the Mac's market share was so small that it wasn't feasible to keep developing games for it."



» [iOS] *Saucelifter* for iOS harks back to and subverts Apple II classic *Choplifter*, with an alien rescuing kin from evil humans.

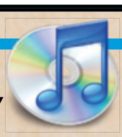
It would need an entirely new platform to transform Apple's fortunes in gaming. It would need the iPhone. Initially dismissed by the tech industry and pundits alike as an overpriced trinket, the iPhone and its multitouch display was an instant hit with consumers. The

> "There was no-one left, except for a few companies porting two-year-old PC games"
> Brian Greenstone



» The iPad was first released in 2010 and has become an incredible success for Apple.





9 JANUARY 2001
■ iTunes appears, initially as an MP3 player. It evolves to be a cornerstone of Apple.

23 OCTOBER 2001
■ Apple revolutionises portable music with iPod, bettering existing players in terms of UI and storage.

31 AUGUST 2004
■ The iMac goes all-in-one, essentially a monitor with a chin. All subsequent iMacs follow this design.

9 JANUARY 2007
■ Apple TV kickstarts Apple's so-called 'hobby' product, muscling in on the space under your telly.

29 JUNE 2007
■ iPhone upends the entire mobile phone industry, with a revolutionary interface others soon clamour to ape.

15 JANUARY 2008
■ Steve Jobs pulls a notebook out of an envelope at a keynote. MacBook Air invents the term 'Ultrabook'.



» Apple's range of home computers and notebooks may be expensive, but they're easy to use and highly versatile.

groundbreaking smartphone marked a turning point in the industry, forever changing how you interacted with devices. Initially, third-party apps weren't part of the picture, although a community flourished to support 'jailbroken' iPhones freed from Apple's restrictions. A year after the iPhone's release, all bets were off: the App Store arrived and with it a gold rush that the software industry had never before experienced.

Steve Demeter's *Trism* utilised the iPhone's accelerometer, the player moving triangular tiles about in a variation on popular match puzzlers. Within two months, Steve had made over $250,000 from an investment of some spare time and paying a designer $500. Elsewhere, rhythm game *Tap Tap Revenge* hit a million downloads two weeks after launch, reaping huge rewards from in-game advertising. Major developers also clambered on board, trying to make sense of this new platform, Sega perhaps doing so most successfully with a tilt-based *Super Monkey Ball*. The trickle became a flood, and suddenly Apple found itself with if not a games platform then at least a platform people were playing an awful lot of games on.

Sometimes, the tide turned. Apple struggled with censorship issues, banning titles for seemingly arbitrary reasons. A small handful of games began to dominate the charts, making life tough for indies. And then free-to-play mechanics spread throughout the platform like a virus, robbing many games of their purity.

Even so, iOS (the platform that now encompasses iPhone, iPod touch and iPad) has many positives, not only for Apple (given that the games category is typically the App Store's most profitable), but also for developers. Veteran coder Ste Pickford reasons that iOS lacks gatekeepers in the way most other platforms don't: "There's no concept approval, where someone decides whether or not your game can be released. We became indies because we wanted the freedom to design videogames without being limited to what marketing departments wanted to sell!" Vlambeer's Rami Ismail adds that iOS also remains a way to potentially reach a huge audience, without requiring massive investment: "There are few barriers to entry, although the platform does have a problem with clones, which can seriously knock your motivation if your game is ripped off."

Despite its success, there are many who question iOS's validity as a gaming platform. "Anyone who says that is out of touch with gaming," argues games creator and artist Zach Gage. "Just about every major studio is developing for iOS, as are thousands of talented indie developers. And often, the freshest IP comes out on mobile." Rami agrees: "I'm tired of people saying certain things aren't games. Beautiful things exist at the edge of what people would call 'videogames', and iOS has offered many such titles."

Now, Apple is setting its sights towards the living room again, with the Apple TV. The little black box is far from revolutionary, but could it herald another gaming revolution from the company that often pretends games don't exist, despite its first hardware hit being built to play one? "I do find it ironic that in the Mac days, gaming was such a low priority for Apple, but now with its mobile systems, gaming is the biggest usage and revenue driver on those platforms," says Alexander, now-CEO of mobile games developer Industrial Toys. "Things have changed, and while a flooded market means it's a lot harder to get noticed, it's still a great time to be making games. And Apple's now a major player in that ecosystem, which is great to see." ✱



10 JULY 2008
■ The App Store radically transforms the iPhone's scope, ushering in an age of truly mainstream mobile apps.

3 APRIL 2010
■ iPad is launched. More or less a giant iPhone, it kickstarts a revolution in tablet computing.

5 OCTOBER 2011
■ Apple cofounder Steve Jobs passes away at the age of 56, having since 2003 battled pancreatic cancer.

24 APRIL 2015
■ The Apple Watch releases and becomes Apple's first foray into wearable computing for the masses.

26 OCTOBER 2015
■ The fourth-generation Apple TV brings Apple apps to your telly, games sharing progress with their iOS siblings.

11 NOVEMBER 2015
■ iPad Pro and Apple Pencil positions themselves at the high-end iPad as a device for creators.

Peripheral Vision

SNES Controller

» PLATFORM: SNES **» RELEASED:** 1990 **» COST:** £7 (UNBOXED) / £10 (BOXED)

Nintendo started the trend towards joypads with the release of the Famicom, and the design for its follow-up proved similarly influential. When the Super Famicom launched In Japan in 1990, it would introduce a variety of now-standard features to the console joypad. The first of these was the addition of shoulder buttons – two long buttons mounted on the top edge of the pad, rather than its face. The L and R buttons were designed for your index fingers to rest on while holding the pad, enabling quick access. The other change was the face button layout – four buttons in a diamond formation, with X and Y joining A and B. The pad also followed in the footsteps of Sega's Mega Drive controller by featuring a rounded body, showing a concession to ergonomics that hadn't been present in the Famicom and NES pads.

Shoulder buttons quickly caught on, becoming a standard feature of console joypads by the 32-bit generation, but the diamond formation of four face buttons took a little longer to become standard as companies (including Nintendo) experimented with different six-button layouts. However, all major consoles and dedicated gaming handhelds use it now – and all owe a debt to the SNES pad. *



ESSENTIAL GAME F-Zero

This futuristic racing game made a perfect case for the SNES pad's layout right from the launch of the system, by offering a control scheme that would be impossible on any other control pad available at the time. As well as the standard acceleration, brake and steering controls expected of a racing game, *F-Zero* added a turbo function on the A button. However, the best addition was the ability to lean your craft with the shoulder buttons, intuitively using L and R buttons to add extra cornering power or provide lateral movement in the appropriate direction.



SNES controller fact

■ Rather than creating its own controller connection standard for the CPS Changer arcade system, Capcom opted to include SNES control ports. Of course, the company hoped you'd use its controllers rather than standard SNES pads…



LICENCE TO THRILL

NOW SHOWING



FILM

» **YEAR:** 1987 (US) 1988 (UK)
» **STUDIO:** Orion Pictures
» **DIRECTOR:** Paul Verhoeven
» **STARRING:** Peter Weller, Nancy Allen, Ronny Cox, Dan O'Herlihy, Kurtwood Smith, Miguel Ferrer
» **BUDGET:** $13,000,000
» **BOX OFFICE:** $53,424,681 (US)

GAME

» **YEAR:** 1988, 1989 & 1990
» **PUBLISHER:** Ocean
» **DEVELOPER:** In-House
» **SALES:** £1,000,000+

If ever a movie defined the term 'sleeper hit' it was RoboCop. It was a box office smash and a videogame translation was inevitable. Graeme Mason looks back at the phenomenon

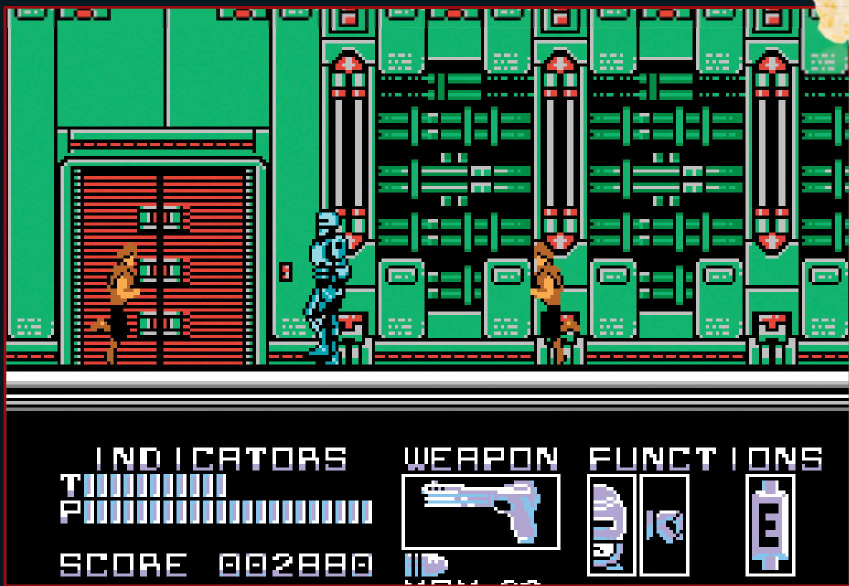
Few movies before and since 1987 have broken the mould like *RoboCop*. Granted, there have been plenty of violent sci-fi films; plenty of satire, too. But combining them both while interweaving a bleak future where corporations play an omnipresent role in the lives of ordinary citizens, together with a wicked sense of humour, created an unexpected hit. Oh, and don't forget the blood. A *lot* of blood. Reportedly turned down by practically every director in Hollywood, even the man whose sole major English-language credit was the medieval tale *Flesh & Blood*, almost let the film's script slip through his fingers. Only a second glance convinced Paul Verhoeven that there was the opportunity to create something special.

As with any good film, the script was where *RoboCop* first began to shine (and as we will find out shortly, was the most important part in the genesis of the videogame adaptation). Written by Edward Neumeier and Michael Miner, its dystopian vision of a crime-riddled Detroit, peppered with acerbic news reports and advertisements gave the movie a thrilling beating heart to go with its sci-fi action. And as with many licences, all Ocean had to go on when making its decision was a sheaf of paper and ink.

But what a script. Not only did the story contain several set-pieces that stood out as potential scenarios for a videogame – *RoboCop* also boasted an unremitting parade of violence and gunplay that would leave the game's designers a relatively simple task of shoehorning the movie into pixelated form. Ocean's development director and movie buff, Gary Bracey, was first to see the script and read it from start to finish, as he did with all submitted material. Gary slapped a yellow post-it note on the manuscript and sent it to Ocean co-owner Jon



» [Arcade] The arcade version included cutscenes.



» [NES] Elongated RoboCop takes on OCP's child-like henchmen.

Woods. The note was as succinct as it was plaintive – 'We should get this – it could be a winner!'

Fortunately, the software house heeded Gary's advice and the licence was acquired, its cheap cost helped by the movie's comparative low-budget and lack of stars. It was still an early stage for *RoboCop* the movie; when Ocean secured the licence in 1987, the movie had just begun post-production. During development of the 8-bit games, Ocean had access to production stills for its references to ED-209 and RoboCop itself (as well as the script), before later in the project it finally received actual VHS tapes containing short clips from the movie.

Likely due to the success of the popular brawler *Target Renegade*, Ocean reunited the team of coder Mike Lamb and graphic artist Dawn Hollywood (at the time, Dawn Drake) for the Spectrum and Amstrad versions of *RoboCop*. On the other major 8-bit platform, Commodore 64, coder John Meegan (*Short Circuit*, *Slap Fight*) and artist Stephen Thomson teamed up for the first time with Jonathan Dunn providing the iconic music for all three versions. "I used to enjoy redoing box artwork and I spotted an American movie mag with some screenshots of an upcoming movie called *RoboCop*," Stephen recalls. "I loved the design so did a Commodore 64 map of one of the images. Fast-forward a few months and I was at CES in Earl's Court trying to get work. I turned up at the Ocean stand and asked Gary Bracey to take a look at my work. By pure chance, they were showing off their latest licences, one of which was *RoboCop*. I showed Gary my *RoboCop* loading screen and got the job on the spot!"

For his first game in the industry, Stephen is rightly proud of *RoboCop*; but like everyone else he was

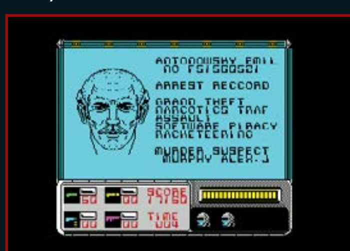


» [NES] It's obviously a warehouse, but this end of level boss? We have no idea.





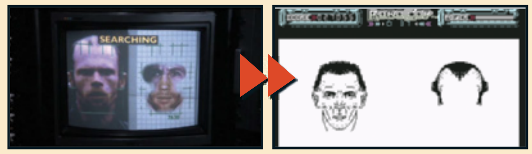
» [ZX Spectrum] Our hero takes on ED-209 without a gun.



» [ZX Spectrum] Software piracy? The cad!

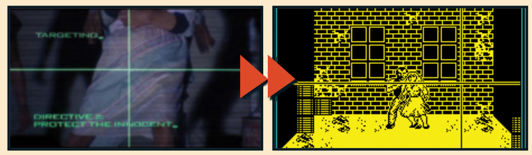
MOVIE TO GAME COMPARISON

How scenes from the silver screen shaped up next to the various home console versions



FACE FITTING

Having spotted a familiar face in a shootout, RoboCop accesses a terminal using his data spike. Taking an image from his memory, the perpetrator is identified as Emile Antonowsky. Ocean recreated this scene for the 8-bit and 16-bit versions and it's a fun diversion from the main game.



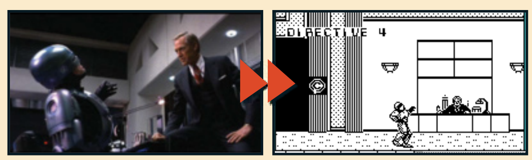
THAT'S GOTTA HURT

RoboCop encounters a crime-in-progress. When the perp uses the victim as a shield, RoboCop' dead-eye shot takes out the bad guy's crown jewels. While the game mimics this scene closely, trying the same trick just kills the hostage – you need to shoot the bad guy in the head or shoulders.



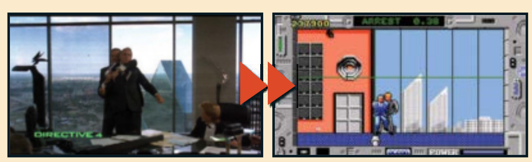
AND FINALLY...

Interspersing *RoboCop* the movie's action are news bulletins which serve to highlight the civil tension that Detroit (and the world in general) is undergoing. The clips were reproduced as digitized stills for the Amiga and Atari ST versions, bringing the game even closer in theme to the movie.



INSURANCE POLICY

Directive 4 is revealed halfway through the movie as OCP's insurance against its product. Unable to arrest Dick Jones, RoboCop is incapacitated before coming face to face with ED-209. In the movie, Murphy seeks to escape, in the game he just has his fists to take down the mechanoid.



YOU'RE FIRED

RoboCop's final scene is as triumphant as it is brief. Using OCP boss as a human shield, the naughty Dick Jones issues a bunch of demands, relatively safe in the knowledge that Directive 4 will protect him. When the old man abruptly fires his ass, he instantly becomes fair game. Go Robo!

under a punishing schedule. Ocean needed to get the game released as quickly as possible due to excited word-of-mouth in America. "It was always about the timescale," says Spectrum artist Dawn. "And deciding what elements would make a good game and then how to fit everything in. We watched the clips a lot and spent hours over stock photos." Gary Bracey himself admits the team were under stress. "Every game can be improved and you can spend months working on details and tweaking. However, given the tight timeframe, the teams did an incredible job. I don't think they could have done a better job given the time."

The design of the game on the 8-bits would follow a set template despite any differences in technology. Starting after the bloody demise of Detroit cop Alex Murphy and his resurrection, *RoboCop* begins with the title character patrolling the streets of the city, searching for the gang who killed him, and is portrayed in a standard side-scrolling view with enemy attackers lurking above as well as on the ground. Fortunately, an early design meeting saw these sections punctuated with segments inspired by the movie. Having disposed of a potential rapist in a first-person shooter mini-game, RoboCop high-tails it back to the station to identify one of his assailants who seems mightily familiar and this photo fit section would be used again in the game to break up the stomp-and-gun action. These two parts were Ocean's attempt to differentiate the game from its arcade cousin, having sub-sold the license back to Data East.

Working on both the Commodore Amiga and Atari ST versions was Ocean veteran Peter Johnson. Having begun his career writing arcade conversions such as *Yie Ar Kung Fu* and *Arkanoid* for the BBC Micro, Peter also converted the latter, and *Wizball*, to the 16-bit machines. A true all-rounder, he created the code, graphics and sound for both these versions of *RoboCop*, and was fortunate to catch the movie prior to commencement. "It was essentially a port of the 8-bit and coin-op versions," explains Peter. "I was also loaned a suitcase version of the arcade game to work from, a VHS video of it being played from start to finish and either the Spectrum or Commodore 64 version for the extra bits they added." The animation of the main sprite was created as Peter 'drew' over the Spectrum's graphics in a style matching the arcade game. However, all the background graphics were redrawn using the arcade machine as a reference. With Peter's expertise and experience with the Atari computer, and the Amiga still gaining popularity, the latter was a port of the former, although both versions of the game are the 'prime' versions of *RoboCop*, containing the best elements from the previous games, with a few cutscenes thrown in for good measure.

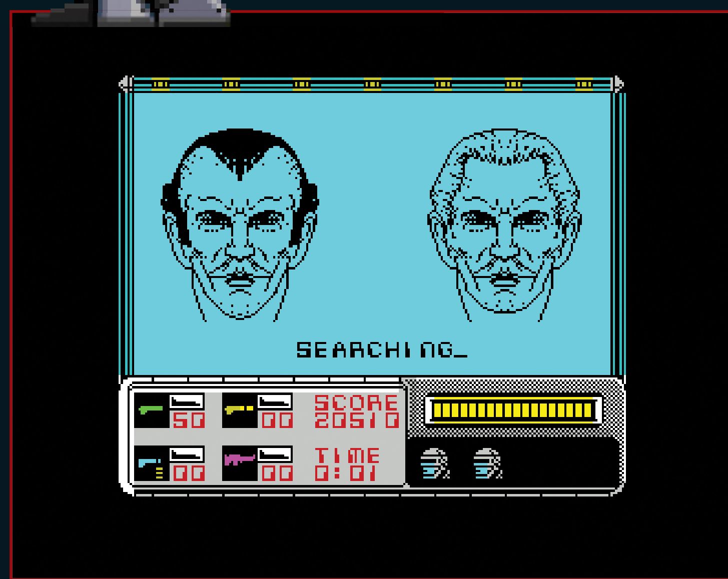




» [Atari ST] A familiar vehicle from the movie.



» [Arcade] The arcade ED-209 is suitably imposing.



» [ZX Spectrum] Flick through the various individual facial characteristics to identify the suspect.

NOTABLE VERSIONS OF ROBOCOP



ARCADE

■ It may have been licensed back to Data East by Ocean, but the coin-op of *RoboCop* is a superb game and served as a template for the home versions. The most notable components are aural with *RoboCop*'s speech and a metallic interpretation of Basil Poledouris' excellent score.



AMIGA

■ Resembling more the arcade version than its 8-bit forebears, Amiga *RoboCop* suffers from a strange metallic border that restricts the action. The game plays smoothly enough, but the main character himself looks a little off sometimes and the sound leaves a little to be desired. It's still a fine game.



DOS

■ Oh dear. We are, of course, huge fans of PC gaming, but this is not the format's or *RoboCop*'s finest hour. A horrible, shrill version of Basil Poledouris' music and jerky CGA scrolling create an unplayable mess. Probably the worst of Ocean's home versions of the big chrome one.



AMSTRAD

■ No doubt sharing a fair amount of code with the ZX Spectrum version (it was also programmed by Mike Lamb), Amstrad *RoboCop* also lacks the ability to jump and moves a little sluggishly. But it's more colourful and boasts the same brilliant score by Jonathan Dunn.



APPLE II

■ Like the PC-DOS version, this was licensed out by Ocean to a third party (in this case, Quicksilver Software) and while it's technically an impressive effort (especially the ED-209 sprite), it's not a patch on the other 8-bit versions, and doesn't really suit the flick screen format utilised.



GAME BOY

■ Released in 1990, this version is a curious mix of the arcade coin-op and home versions. The two sub-games are both present, and the format suits the handheld machine rather well. The screen can get a little crowded sometimes, but otherwise it's another fine game.

ARTISTIC LICENCE

These weren't in the film…

JUMPING ROBOCOP

■ RoboCop is heavy and can't run, let alone jump and why would he need to? However, in some versions of the game our hero is able to skip around each level like an armour-plated ballet dancer. It's not a deal-breaker, but it is weird.



CHAINSAW MANIACS

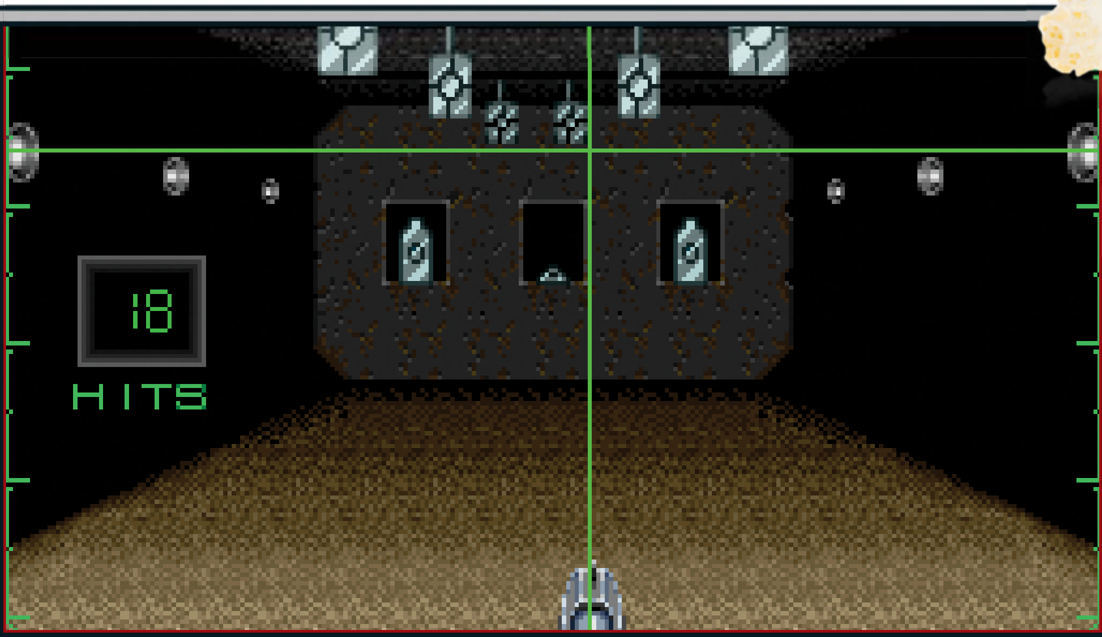
■ *RoboCop* the game needed a greater variation of enemies than simply Clarence Boddicker's evil gang, which explains the mulleted motorcyclists and the chainsaw-wielding maniacs, complete with hockey masks. Jason vs RoboCop – now there's an idea.



GUNS, GUNS, GUNS!

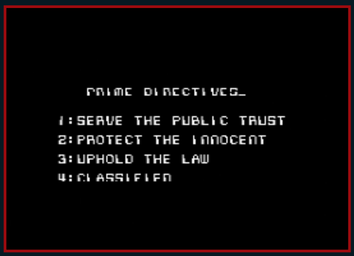
■ Most of *RoboCop*'s game iterations feature improved versions of his gun. The arcade game gave the player the opportunity to use the Cobra Assault Cannon, but you could argue that was in the movie. The triple shot was most definitely not.





» [Arcade] The arcade version included this superfluous shooting gallery.

With an estimated budget of $13 million, *RoboCop*'s opening weekend reaped $8 million in US box-office receipts. Word-of-mouth increased its final tally to over $53 million, a figure which, when adjusted for inflation, equals almost $120 million, eclipsing 2014's sterile remake. The movie was a moderate success in UK cinemas and it became a bigger hit on home video in the winter of 1988, serendipitously coinciding with the release of Ocean's 8-bit versions of the game. "I liked the finished game and was proud that Mike and I had managed to capture different aspects of the film such as the hostage situation and photo fit," says Dawn. "Jonathan Dunn also got the music and sound elements perfect, and at that point it was the pinnacle of my career." The two-person team also worked together for the C64 version, as Stephen remembers. "Teaming up with Johnny Meegan was brilliant for me. Magazines such as *Zzap64!* started to mention us as a team and we got a lot of recognition for our hard work. But I have a soft spot for *RoboCop*, mainly because it was my first game." But what about the man who was responsible for bringing *RoboCop* into pixelated form? "At that point it was the biggest game I'd been involved with," says Gary. "It was the first licence I'd chosen myself. As for the movie, I loved it when I first saw it!" We agree – *RoboCop* remains one of the finest action movies and movie videogame licences of the Eighties. Load it up, play it, watch the movie. And stay out of trouble. ★





» [C64] Dodging bullets on the street



ATARI ST

■ Once more converted by Peter Johnson (Amiga), the Atari ST version lacks speech and the Amiga's crunching sound effects, but is still a commendable stab at recreating the arcade machine along with the extra mini-games from the various 8-bit home versions.



COMMODORE 64

■ Despite some excellent sprites, smooth scrolling and nice music, the Commodore 64 version of *RoboCop* is a little too tough for its own good, with the enemy bullets zipping across the screen at blistering speeds and an unremittingly harsh time limit on some of the later levels.



MSX

■ The MSX version looks very similar, graphically, to the ZX Spectrum version, although a little more sluggish, which is surprising as it was essentially a direct port. It's arguable that the MSX hardware was not used to its full extent, although the game still retains its playability.



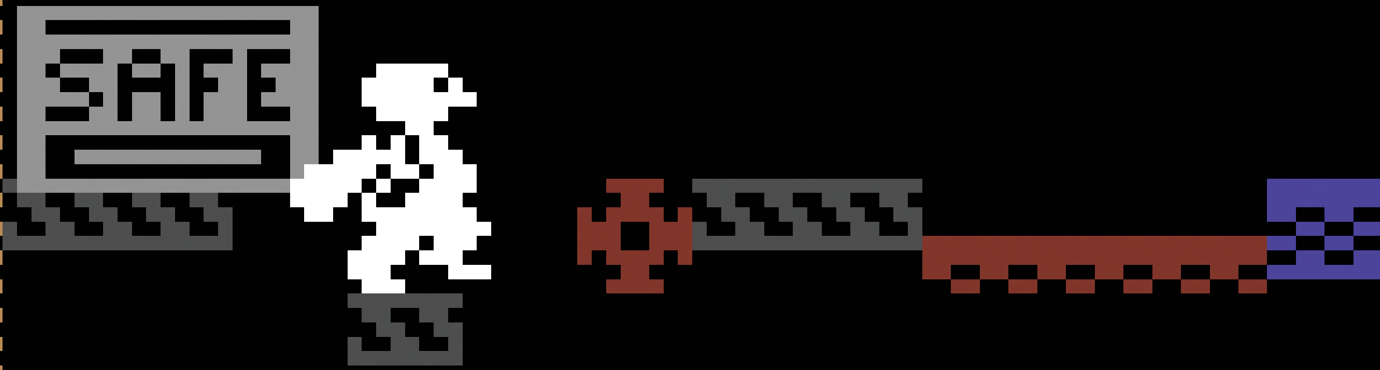
ZX SPECTRUM

■ In contrast to many of the other versions, the Spectrum interpretation of the metallic hero was more akin to its movie counterpart; slow, cumbersome and unable to leap into the air. Despite an annoying 'freeze' when the main character when hit, it's an excellent game.



NES

■ The NES offers a, frankly, bizarre take on *RoboCop*. RoboCop himself likes he's been on the rack, stretched and thin, and this has the unfortunate effect of making his enemies resemble small children. Attack dogs and one-man helicopters complete the strange mix from Sakata SAS.



BLAGGER & SON OF BLAGGER

Tony Crowther was one of the best known and most prolific coders on the Commodore 64. Paul Drury blags a guided tour of two of his early games



» Tony revisits his old mate Roger The Dodger in his office at Sumo Digital in Sheffield.

The prolific C64 developer, Tony Crowther, peers at the screen of the laptop and grins. "I've never seen anyone play through this pair before," he says. "I completed every one of these levels to make sure they could be done when I was writing them but could I do them now? No way! I've even lost the knack of getting through the first screen!"

We are sat in Tony's office at Sheffield-based game developers Sumo Digitial, the creators of such titles as *OutRun 2* and *LittleBigPlanet 3*, to show him a video of pixel perfect performances on two titles he produced in 1983, *Blagger* and *Son Of Blagger*. It was the year he announced his arrival on the C64 scene – this pair of platform games were amongst a haul of eight he released through the newly-founded Alligata Software that year – and the sequel in particular indicated this was a programmer with real talent and solid ambition. It also marked a transition from him coding in his bedroom to becoming the company's first in-house developer and his new boss quickly set him to work.

"*Manic Miner* had just come out and my manager Nick Edwards said, 'Can we have one of these for the C64?'" Tony remembers. "I had done a platform games before, *Damsel In Distress*, but it wasn't very good. Let's call that a practice. I was really impressed with *Manic Miner* so I said, 'No problem, will do one of those.'"

As we watch Roger The Dodger, the light-fingered antihero of *Blagger*, tackle the first few screens, it's clear that he learned much of his trade from Miner Willy. The opening level, 'The Bank', features dissolving platforms and Level 3, 'The Mad Hatters Den', involves a long plunge to the goal very reminiscent of *Manic Miner*'s second level, 'The Cold Room'. "Oh no, there was no direct copying," Tony assures us, "but we did have screenshots [of *Manic Miner*]



IN THE KNOW

- » **PUBLISHER:** ALLIGATA
- » **DEVELOPER:** TONY CROWTHER
- » **RELEASED:** 1983
- » **PLATFORM:** VARIOUS
- » **GENRE:** PLATFORMER



BLAGGER AND SON OF BLAGGER 101

■ Inspired by the success of *Manic Miner*, *Blagger* is a competent platformer. Although it borrows heavily from Matthew Smith's masterpiece, it is one of the better clones of the era. The sequel, breaks much new ground, offering a large play area for our intrepid thief to leap and lollop through.

and I did know the game. We were trying to do something in that vein…"

Those familiar with Miner Willy's first adventure will smile as they spot the obvious similarities. Across *Blagger*'s 30 levels you will encounter giant wobbling telephones, conveyor belts, a Skylab setting and switches to be flipped which open up new areas to explore. Yet as we approach Level 6, we see Tony has included something of his own design, an 'automatic ladder' that whisks Roger upwards, elevator-style. "That was a clever cheat on the C64," he winks. "You could stick the character for the ladders all over the screen and then edit the graphic character itself so it looked like the ladder was moving. Free animation!"

It certainly adds an interesting play mechanic to the game and, despite the game owing much to Matthew Smith's masterwork, there's plenty of Tony's own personality on display in *Blagger*. The seductive sets of lips on 'Evil Dentist' and the gigantic confectionary on 'Who Let The Sweets Loose' suggests an oral fixation and then as we enter Level 10, 'The Eery Graveyard', we rather pedantically point out that it's actually spelt 'eerie'.

"My spelling is appalling," admits Tony, shaking his head. "This was before the days of quality assurance! These days, you write a game and someone goes through it and you get a list of what's wrong with it and you fix it. There was none of that. Write it, master it, ship it!"

To Tony's credit, he included a pretty diverse bunch of levels in the game, with some short and sweet and others, such as Level 11's 'Lost In A Maze', requiring thoughtful route-planning and painstaking back-tracking. "He looks like the early days of William Wobbler," says Tony, spotting the resemblance of the baddie on this screen to the star of his first post-Alligata game. "I was trying to bring in some variation. I'd done short and quick ones, so this was me showing off, trying to create the longest path possible in the limited space. I was trying to drop little puzzle ideas into levels, too, bits players had to fiddle with to work out."

Which makes us wonder how he went about designing the many levels that stand between Roger and his escape with the loot he gathers along the way. Did he meticulously sketch each one out on graph paper or perhaps use an advanced editor to carefully construct his labyrinthine levels? "Oh I did it all with PRINT statements," answers Tony, rather surprisingly. "The programme is actually partially in BASIC. You list lines 10 to 20 and that's the map for the screen! I would just use the Control keys and tap in the characters, working out where they'd go. It was before the time of map editors."

Primitive, perhaps, but that method enabled Tony to quickly edit platforms and readjust walls as he tested each screen and made sure even such fiendishly difficult screens as Level 16, 'Revenge Of Buzby', a nod to British Telecom's feathered

> **"This was before the days of quality assurance!"**
> Tony Crowther



» [C64] The first screen establishes the robbery theme, though confusingly number itself as 'Level 00'.



» [MSX] *Blagger* was ported to various platforms, including the MSX.

TONY'S SWAG

His three favourite Blagger levels

THE LOGO OF YEAR

■ Tony pays tribute to his first publisher by rendering its name in dissolving platforms. "I had a habit of putting words in my maps and I think this was the first one I did. I did it again with *Bombuzal* and *Son of Blagger*. This is where the trend began!"



WHERE IS THE LIFT ATTENDANT



■ Tony goes crazy with his self-climbing ladders. "I like this one. It brings in a new play mechanic. You have to keep falling and going up the screen in different places. I was always looking for new ideas so why not fill the screen with ladders?"

THE FINAL CONFLICT

■ A nod to both the third *Omen* film and *Manic Miner*'s last level. "I do love horror films though I can't remember coming up with all the screen names to be honest. I think Nick [Edwards] may have asked for specific levels or just named some afterwards!"



mascot, were definitely doable. "I don't think I really balanced the levels so they get trickier," he muses. "I just think they are all really tough…"

It's hard to disagree as you pass the halfway point and encounter Level 20's fairly straightforward 'Caverns Of Death' and then the very tricky 'Chinese Have Returned Once More', which Tony assures us is not a prescient reference to the economic rise of the Eastern Superpower. There are nods to his love of horror films, too, with screen titles such as 'Crypt Of The Evil Dead' and 'Babies Have Gone Mad', the latter featuring bizarre snapping Pac-Man-like prams, and we have to ask about the vegetation in Level 18's 'Something Smells In Here'. Do we detect a whiff of cannabis emanating from those five leaved plants along the bottom of the screen?

"It was a swamp," says Tony, inhaling sharply. "No, I wasn't into drugs. Never done anything drug related. Beer, though… I love alcohol."

And you might need a stiff drink to tackle the last few levels, particularly the hellish warehouse of 'Find The Boxes' and the lumbering zombies of the penultimate 'Creepy Is Not The Word'. The Herculean task of completing all 30 screens rewards the player with nothing more than an abrupt end, which seems rather miserly we suggest. "Sorry," offers Tony. "That was the two week stint over and it was on to the next game!"

Yes, the entire game was created in just a fortnight, with Tony working days in the office and then continuing into the early hours back at home. He was the sole coder on the project, though acknowledges some playtesting feedback from Pete Frith and many of the screens were named by Nick Edwards and Mike Mahoney, boss of Alligata, who also came up with the name *Blagger*. The game did well for the new company, remembers Tony, and they even translated all the level names

"We never thought anyone would ever finish Son Of Blagger"
Tony Crowther



» [C16] A plucky version of *Blagger* made it to the Commodore 16, coded by Brandon James.



» [BBC] The garish colour scheme can't put off our voracious thief.

into German for the release of the retitled *Papagei Gangster* over there. Thus it wasn't surprising when Mike suggested a sequel might be a good move.

"I did *Killer Watt* next and that taught me how to do scrolling, left and right," explains Tony. "I thought, Okay, now I could try to do four-way scrolling. I was trying new cool tricks on the C64. There was no-one to teach you… you just had to fiddle with the hardware and teach yourself"

Tony's educational progress was clear. At the start of 1983, he was producing slightly wonky text adventure *Aztec Tomb* and *Galaxian* clone *Bat Attack* and by the end of the year he was tackling the multi-directional scrolling platformer. Though we would argue Rock-Ola's 1981 arcade hit *Jump Bug*'s pyramid level invented the idea, *Son Of Blagger* is the first examples of the genre we can think of on an 8-bit machine and was undoubtedly a far bigger challenge to code than the original.

"Yeah, this took me nearly a month," says Tony, nonchalantly, as we begin the playthrough video of the game. "This was coded 100 per cent in assembly language. I had a one line assembler and would program directly into memory. No compiling or anything, so if you want to insert some code, you'd have to find a three byte instruction, change it into a jump so it would go somewhere else in memory and then remember that when you came back, you needed to put that original instruction back in! Ridiculous, really."

Tony talks us through each of the dozen levels of the game in a kind of director's commentary, which you can read overleaf. What continues to fascinate us with *Son Of Blagger* is the way that all 12 sections tessellate so elegantly together and as you guide Roger's lad, apparently still very much into the family business, through each section, you are given tantalising glimpses of the challenges yet to come. Whilst still a stern test, it's not quite as tough as the original *Blagger* either, and where that one drove players to distraction with a snippet of *Blue Ridge Mountains Of Virginia* every time you grabbed a key, *Son Of Blagger* accompanies the action with a rendition of Winifred Attwell's *Black And White Rag*.

"You mean the *Pot Black* theme," Tony chips in, recalling the popular snooker programme of the Seventies and Eighties. "I remember the magazines printed a map of the whole game and I think we included it on the cassette insert as well. I'd write a game in two weeks and then spend the next two weeks running around the magazines showing them what I'd done. Then I'd go back and do another one. I was loving it…"

Tony certainly became a familiar face to readers of the gaming press in the eighties, his mop of blonde hair regularly gracing the pages of *Zzap!64* and *C&VG* amongst others, and along with names like Jeff Minter and Archer Maclean was one of the most recognisable Commodore coders of the day. And we'd argue his rise to C64 royalty began with *Son Of Blagger*. He applied what he'd learned about multi-directional scrolling to his version of *Monty Mole*, a big hit in 1984, and also released such impressive titles as *Loco* and *Potty Pigeon* that year, the latter after a move to Gremlin Graphics. He continued producing distinctive titles for the C64, such as *Kettle* and clever puzzler *Bombuzal*, before moving into 16-bit and console development, his CV boasting such fine Amiga games as *Captive* and *Liberation* and the Dreamcast's *Wacky Races*. Tony still works in game development today and so we wondered if he'd enjoyed this little nostalgia trip back to 1983?

"They were good times," he grins. "I right enjoyed going down to London to visit the magazines, spending the weekend down there, getting drunk, going to nightclubs and then coming back up. And watching these two games hasn't made me cringe. They were better than I thought they would be!" ✱

Thanks to Tony and Sumo Digital for their hospitality, DerSchmu for the playthrough videos, Nigel Fishwick for the *Son Of Blagger* map and Martyn for the help.

CROWTHER'S COMMODORE CREATIONS

Six more of his C64 games

BUG BLASTER 1983

■ Tony delivered six games to Alligata as a freelancer programmer in 1983, including *Balloon Rescue*, his take on Taito's *Crazy Balloon*, and this *Centipede* clone.

KILLER WATT 1983

■ This fine blaster, set in a series of claustrophobic caverns, saw Tony's first experiments in scrolling and also includes a fine rendition of Bach's *Fugue In D Minor*.



LOCO 1984

■ Based on Sega's *Super Locomotive*, Tony's version looked a treat on the C64 and he revisited the concept twice with *Suicide Express* and *Black Thunder* the following year.

MONTY MOLE 1984

■ Developed separately and completed before Peter Harrap's Spectrum version, Tony's riff on the miner's strike features much faster four-way scrolling than *Son Of Blagger*.

POTTY PIGEON 1984

■ Tony came up with the concept for this feathery shooter featuring toxic bird droppings while sitting on a park bench with his girlfriend. You can guess the rest.



WILLIAM WOBBLER 1985

■ Released under Tony's own Wizard development label, this arcade adventure looked the part but, despite the prize on offer for successful completion, wasn't one of his best.

BLAGGING IT

Tony walks us through Son Of Blagger

LEVEL 1

■ Blagger's boy's quest begins ominously with a broken heart to dodge. Was this a reference to the player's fate or your own, Tony? "My wife did leave me for a while but I'm not sure if it was while I was doing this." Unlike the original, the floors here don't dissolve but slowly disappear and reappear. "The problem with dissolving platforms is they don't come back so how can you reset the level? I needed a different mechanic."

LEVEL 2

■ Tony's oral fixation continues in this sequel, as you're faced with both a floating mouth and a giant toothbrush to avoid during a tricky run across a vanishing platform, requiring several well-timed leaps. There's also a series of slides to slip down towards the exit in this short level. "The hardest thing was stopping your character sliding through walls when he's going down one of the slides," notes Tony. "I had issues with that."

LEVEL 3

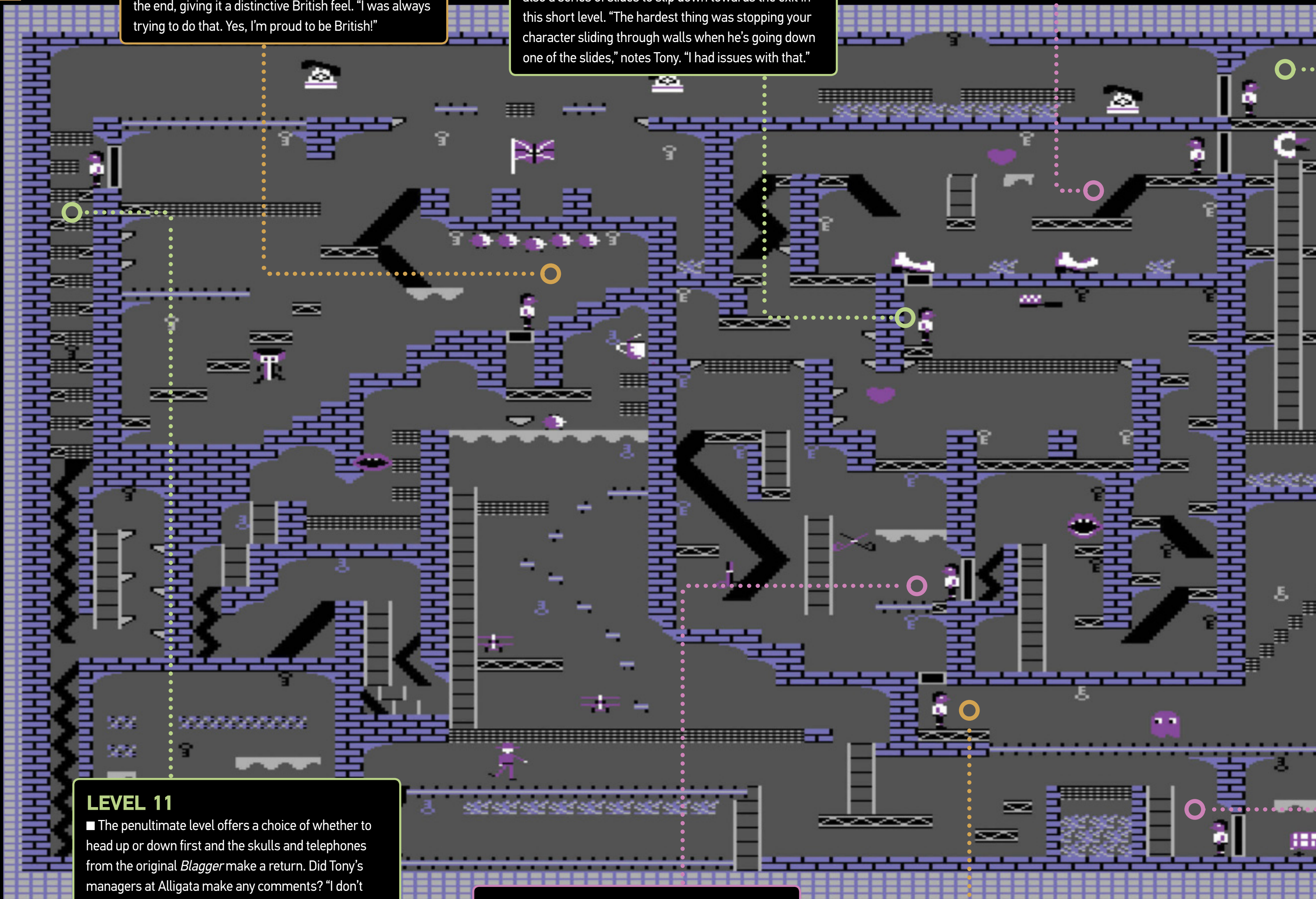
■ Conveyor belts and ladders return from *Blagger* and are joined by snapping scissors, which require judicious sliding and leaping to outmanoeuvre. "I had an editor at this point so I could scroll and edit the levels while I was playtesting it," explains Tony. "I wouldn't have been playing it all from start to finish because it was a complex thing. Now I could move the character round and start playing from wherever I wanted."

LEVEL 4

■ This begins with a ghost clearly related to Pac-man's foes. No nasty calls of copyright infringement from Namco, Tony? "At this point, it wasn't an issue. There were loads of things we did back then, like 'borrowing' characters from other games, that you couldn't do now!" This level contains our favourite section of the whole game, the Alligata logo writ large in disappearing floor tiles, which is great fun to negotiate.

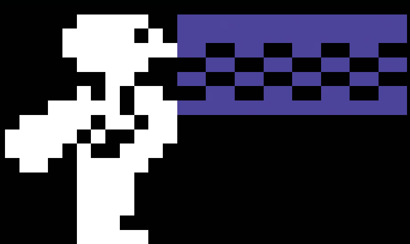
LEVEL 10

■ This screen opens up nicely once you lollop past a chain of turtles doing a fine *Centipede* impression. "I wanted to bring in that variation," says Tony. "I was playing it myself and it needed to be tricky by this point. And that long nosed guy is supposed to be a bolt! With legs and arms!" This level also includes a Union Jack at the end, giving it a distinctive British feel. "I was always trying to do that. Yes, I'm proud to be British!"



LEVEL 11

■ The penultimate level offers a choice of whether to head up or down first and the skulls and telephones from the original *Blagger* make a return. Did Tony's managers at Alligata make any comments? "I don't think my bosses ever saw past the first level or two. My priority was to try and keep it interesting all the way through. And by this stage, I wanted to make it hard work [for the player]."



LEVEL 12

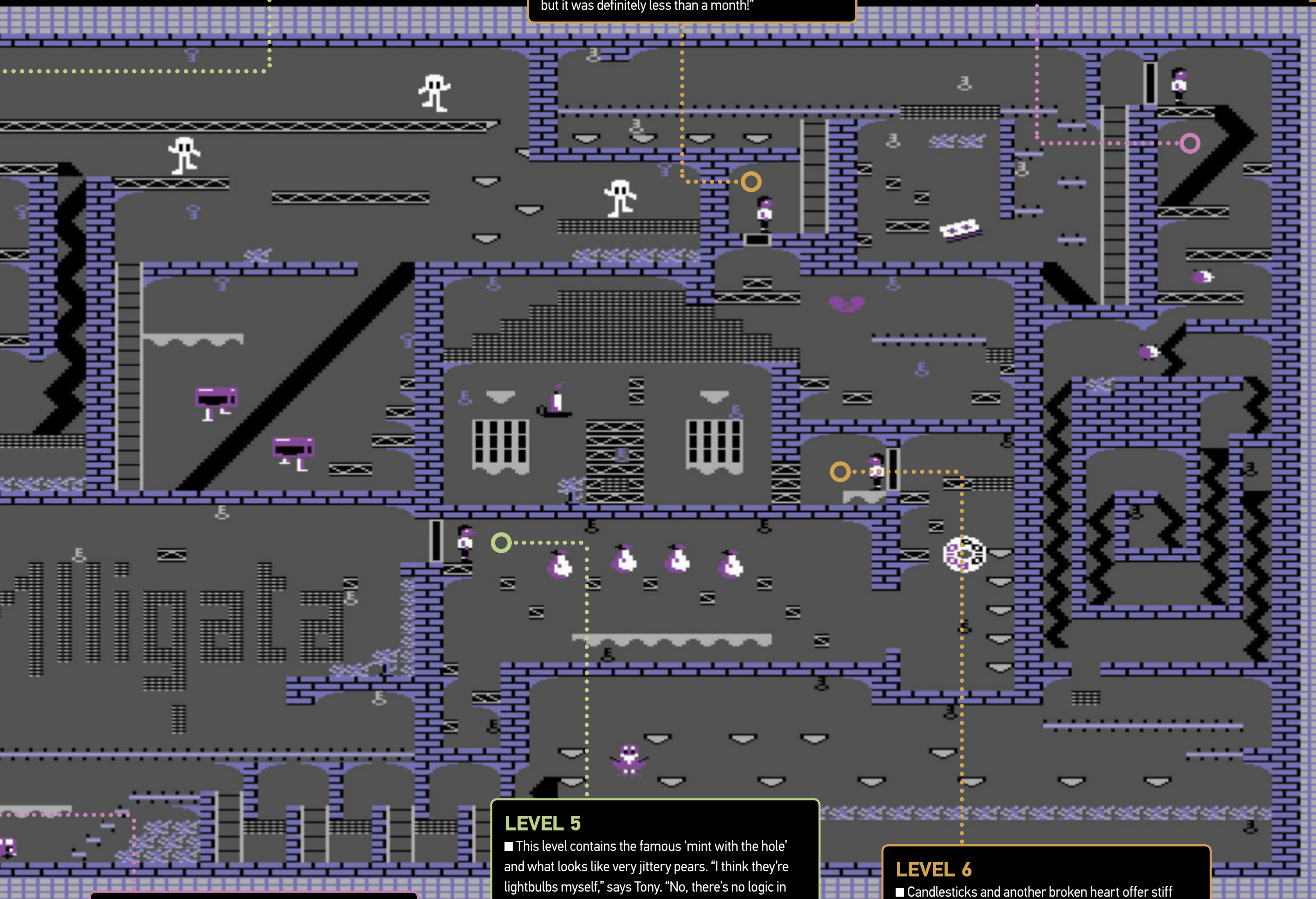
■ The final level features a coherent set of enemies: the Commodore logo, C64s and Sinclair mascot Horace. "I avoided every other machine when I was coding for the C64." *Son Of Blagger* does have an end sequence, challenging you to, 'Now try this for size,' but then repeats from the beginning. "I just couldn't get it to go any faster," apologises Tony. "Anyway, we never thought anyone would finish it!"

LEVEL 7

■ After negotiating a set of small conveyor belts and ledges, our thief is faced with the sharp end of a razorblade. "It's a video cassette!" protests Tony. "The Alligata shop used to rent out videos so that comes from there. I was programming in the office at the back of the shop and then I would carry on at home at night. *Son Of Blagger* took longer than my usual two weeks but it was definitely less than a month!"

LEVEL 8

■ One of the longest levels in the game, this involves a descent down the right hand side of the map and features cameos from *Frogger* and *Sesame Street*. "I think that bird is based on Big Bird. Look, I hadn't many pixels to play with!" The final section of this level involves a stroll through a set of nicely-constructed arches, providing players with a little respite. "Or maybe I was just running out of ideas," suggests Tony.



LEVEL 9

■ Another lengthy level, this time introducing a toy solider and planes that fly vertically. Surely helicopters would have been a better fit, Tony? "Look, teacups don't fly either," he points out, jabbing his finger at the giant vessel that also stands in your way. "It's getting near the end and I was waning." The number of enemies in this level and the tight spaces you must wiggle through make this screen one of the hardest, too.

LEVEL 5

■ This level contains the famous 'mint with the hole' and what looks like very jittery pears. "I think they're lightbulbs myself," says Tony. "No, there's no logic in the combination of sprites. I was just trying to get them to look nice and I've got some colour in my sprites by this game. Not much colour, though, because I couldn't scroll the colour screen at the same time! I did work out how to do that with later games."

LEVEL 6

■ Candlesticks and another broken heart offer stiff resistance in this short, tightly packed level. "You'd end up with 'holes' in the middle of the map," says Tony, "and I'd think, 'Right, I'll put a bit more map in here, to pad it out and use all the space.' That was the thing with *Son* – there was a maximum size [of the map] because I knew how much memory I had for the play area. I couldn't just do one screen at a time like with *Blagger*!"



CLASSIC MOMENTS

Samba De Amigo Ver. 2000

» **PLATFORM:** DREAMCAST » **DEVELOPER:** SONIC TEAM » **RELEASED:** 2000

Why did *Samba De Amigo* work so well in an arcade environment? Easy: music games are perfect for playing in public. You can attract spectators playing practically anything, but there are few types of game better suited for the exhibitionist than music games. It doesn't matter whether you're dancing, slapping buttons or – as would be the case with *Samba De Amigo* – shaking maracas. Thanks to the novelty of the maracas, it works just as well on the Dreamcast as a party piece too.

Of course, you only tend to attract an audience if you're extremely good or truly awful, and the former is way more gratifying. Anyone can pull off a small combo and even one extending into the double digits, but the moment your counter has to add a third digit is when you'll really start to impress onlookers. You're in the zone, on a roll and you've got an audience – enjoy yourself, because *Samba De Amigo* is at its absolute sweetest in moments like this. *

BIO

Having scored a cult hit with its Dreamcast conversion of *Samba De Amigo*, Sonic Team released an updated version eight months after the original release. Apart from an expanded song list, including 14 new licensed tracks and six classic Sega themes, the game added new modes including Survival. Despite being announced for a NA release at the Sega Gamer's Day event in 2000, the localised version was cancelled in the wake of the Dreamcast's discontinuation and the game remained a Japanese exclusive as a result. Despite that, it's still accessible to English-speaking audiences.



MORE CLASSIC SAMBA DE AMIGO VER. 2000 MOMENTS

Top Marks



Keep up the good work, avoid missing too many notes and you can get yourself top marks – which in *Samba De Amigo* is an A ranking. There's an incredible feeling of satisfaction that comes with mastering a song, and you're probably only a short step or two away from achieving the Holy Grail, which in *Samba De Amigo* is a perfect play.

Do The Hustle!



The big new mode for *Samba De Amigo Ver. 2000* was Hustle mode, a more advanced game featuring new moves. While you've still got to do regular shakes and poses, new moves have been added into the pool, including waves between points and a big 360 degree windmill spin. It's the perfect mode for those of you who love to show off!

Daytona!



The downloadable Sega tracks from the first release of *Samba De Amigo* were great, but the new selection for *Ver. 2000* contains the highlight of the bunch – Takenobu Mitsuyoshi's epic *Daytona USA* theme, *Let's Go Away*. Simply hearing it makes us much more likely to get up and shake our maracas, and the colourful cast of characters perfectly fits the music.

Shake And Spike



The original Dreamcast mini-games from *Samba De Amigo* have gone in *Samba De Amigo Ver. 2000*, and they've been replaced with this brand new side-on volleyball game. It's a surprising use of the maracas, but it works pretty well – you can move your hand, bounce and smash the ball, and play against various members of the background cast.

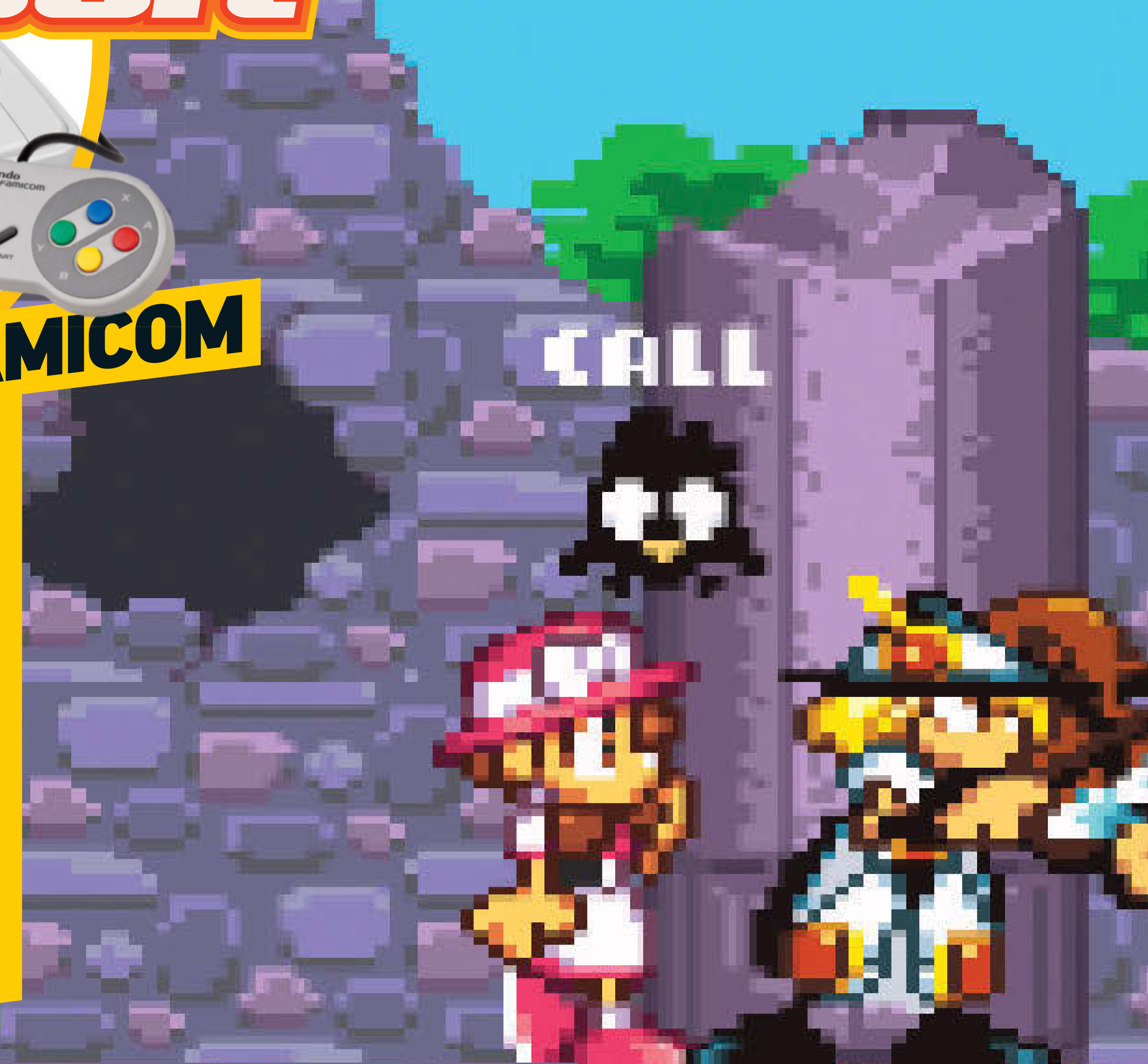
Minority Report

INTERESTING GAMES YOU'VE NEVER PLAYED



SUPER FAMICOM

While the Super Nintendo's games library is incredibly diverse, it's just a drop in the ocean compared to the sheer amount of variety found on its Japanese counterpart. Darran Jones should know, as he's just started collecting for the system and is having a heart attack over some of the current prices!





» [Super Famicom] You can't see it here, but there's a lovely morphing effect as you choose new costumes.



» [Super Famicom] Locations can be revisited upon completion, useful if you want to use later costumes to get every item.

HAMELN NO VIOLIN HIKI

■ DEVELOPER: DAFT ■ YEAR: 1995

■ Whilst it's perhaps best known for its RPGs like *Dragon Quest*, Enix was an extremely versatile publisher on the Super Famicom, releasing games across a wide variety of genres. One of its most interesting gems is this loose adaptation of the popular Japanese manga *Hameln No Violin* by developer Daft, which roughly translates as *The Violinist Of Hameln*.

Gameplay-wise, *Hameln* is predominantly a platform game that features an increasing number of puzzle elements as your quest progresses. Playing as Hamel, you must make your way through the beautifully designed game world, attacking enemies with quavers from your violin and calling upon the powers of the ever-suffering Flute, Hamel's reluctant sidekick. At first Hamel simply uses Flute as a makeshift platform, jumping on her to reach out of the way areas or to gather useful power-ups and items, but as Hameln's four acts play out, he'll also use her as a projectile to break through walls. Although Flute will take damage if she's hit by enemies, she can never be killed and will be picked up by Oboe (the bird that follows you around) should she ever fall down a pit or disappear offscreen. Flute doggedly follows Hamel wherever he goes but can also be halted and summoned via the 'X' button, allowing Hamel to trigger switches and access areas he can't otherwise reach.

Flute's biggest use, however, is her ability to wear different costumes that bestow a number of useful powers on her that Hamel can then use for his own gain. The ostrich suit allows Flute to walk across spikes



» [Super Famicom] The bosses are often huge in size and based on enemies featured in the manga.

(with the lazy Hamel resting on her back) while the robot suit lets her punch through walls whenever Hamel jumps on her head. The frog suit increases Hamel's jumping abilities, the duck suit allows him to cross vast stretches of water or dive by again jumping on Flute, while the Curling Puck turns Flute into a dangerous weapon that can take out multiple enemies at once. In all there are 15 different costumes to discover and virtually all of them give Hamel access to new useful abilities.

The early stages of *Hamelyn* are largely platform-based, but take on additional puzzle elements as more costumes are introduced. While early stages simply require a single suit to complete, later levels will see you continually switch between suits in order to safely traverse the stage or collect the many useful items that will help you on your quest. While Hamelyn does feature a fair amount of Japanese text (an English patch does exist, mind) you can normally work out what you have to do with a little bit of thought.

Beautiful to look at with a sweet classical music-based soundtrack that is a delight on the ears, *Hamelyn No Violin Hiki* is an excellent game, which is slowly rising in price. The biggest fault we can level at it is the complete lack of a password or save feature, meaning you'll have to complete the game in a single sitting.

IN DEPTH



A HANDY REMINDER

■ This little fellow is Oboe. In addition to letting you know when you can and can't summon Flute, he'll also fetch her whenever she falls down a pit.

CRUEL TO BE KIND

■ Hemel certainly likes to put Flute through the wringer. When he's not flinging her at walls, he stuffs her into a sack when she's changing forms.

IT'S A COLLECTATHON

■ There are numerous items to find in *Hameln No Violin*. This fruit will restore Hamel's health, while gold quavers will enhance his violin.

RAISING THE BAR

■ There is lots of useful information stored here. It displays how much time is left on the level, Hamel's gold, and current bonus stars.

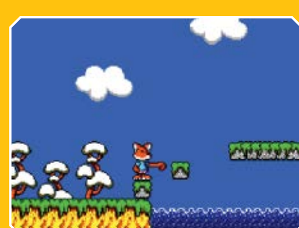
IF YOU LIKE THIS TRY...



THE MAGICAL QUEST STARRING MICKEY MOUSE

SUPER NINTENDO

■ This is another gem for Nintendo's 16-bit system. Mickey gains access to several new costumes as his quest continues, which all grant him different powers. Two sequels appeared, and all three were later released on the GBA.



PSYCHO FOX

MASTER SYSTEM

■ Vic Tokai's highly entertaining platformer was released in 1989 and remains one of the best games on Sega's 8-bit console. Psycho Fox has the handy ability to change into three other animals (a hippo, monkey and tiger) in order to navigate his way through the cleverly designed stages.



WONDER BOY III: THE DRAGON'S TRAP

MASTER SYSTEM

■ For many, this remains one of the best *Wonder Boy* games ever made. It features a number of different animals to change into, all of which have vastly different abilities that open up the large game world. A version called *Adventure Island* also exists for the PC Engine.

Minority Report

COSMO GANG: THE VIDEO

■ DEVELOPER: NAMCO ■ YEAR: 1992



» [Super Famicom] This useful dual shot makes shooting down enemies much easier.

» [Super Famicom] Stop the Cosmo Gangers from running off with your energy capsules.

» [Super Famicom] This power-up stuns everyone, allowing you to pick them off.

■ Although *Cosmo Gang* never reached the west, some readers may be familiar with Namco's quirky redemption game, which did make the trip overseas. Originally released in Japanese arcades in 1991, Namco created a Super Famicom conversion the following year and it's extremely accurate, capturing all the wackiness of the arcade original. *Cosmo Gang* reminds us of both *Galaga* and *Parodius*.

As with many other single-screen shooters, the aim of *Cosmo Gang* is to simply destroy all the waves of enemies so that you can move onto the next stage. Waves of Cosmo Gangers come in from the left and right hand sides in elaborate patterns and then settle *Galaga*-style at the top of the screen. Shooting certain enemies cause them to drop a 'P' icon, which will increase your multiplier. The multiplier goes up to 16 and carries across levels too, meaning it's possible to rack up some truly impressive scores with a little practice.

In addition to the 'P' icons, *Cosmo Gang* features a number of interesting power-ups that range from spider webs, which slow down the enemy, to a jack-in-the-box that temporarily freezes everything on-screen. Additionally, a couple of power-ups only appear during two-player games and either switch the players' positions or enable them to create a powerfully charged weapon that rains down bullets on the Cosmo Gangers. The two-player mode is actually quite challenging as both players share lives, as well as an overall score. It's a pity there's no competitive aspect, but it's not a deal breaker – the game is awesome fun regardless.

MORE GAMES TO PLAY



» GHOST CHASER DENSEI

■ DEVELOPER: WINKYSOFT
■ YEAR: 1994

■ This is an adaptation of Winkeysoft's obscure arcade brawler. While cut back in a number of ways (only three of the original six playable characters are included and a stage is missing) it's nevertheless fun to play thanks to its varied movesets and some cool tag-team moves. It also features a novel risk and reward power-up bar that recharges should you simply stand still and do nothing.



» ALCAHEST

■ DEVELOPER: HAL LABORATORY
■ YEAR: 1993

■ This action RPG has plenty of slick touches. All stat growth is earned by finding magical items; you can receive help from guardians, *Magic Sword*-style; experience points let you restart in the same room as opposed to the beginning of a chapter and there are four elemental swords to master and switch between. Best of all it's light on Japanese (although a fan translation does exist) meaning it's nice and accessible.



» GANBARE GOEMON: KITERETSU SHOGUN MAGGINESU

■ DEVELOPER: KONAMI
■ YEAR: 1993

■ Unlike the original game, Konami's sequel is a straightforward platformer with fantastically updated visuals. There are three characters to choose from and a large number of wacky vehicles to use, from robotic fish to mechanised sumos. Impact battles also debuted here and utilise Mode 7 to great effect.



» SANRIO WORD SMASH BALL!

■ DEVELOPER: TOMCAT SYSTEM
■ YEAR: 1993

■ The best way to think of *Sanrio World Smash Ball* is as a vertical version of *Windjammers* mashed with *Breakout* spread across 30 stages. While you only need to get a disc past your opponent's goal line, there are lots of blocks in your way that need to be destroyed first. Fortunately, destroying blocks reveals a number of power-ups that can tip the odds in your favour or cripple your opponent.

SUPER MAD CHAMP

■ DEVELOPER: GIVRO ■ YEAR: 1995

■*Road Rash* may not have made it to the Super Famicom, but this excellent racer is a more than suitable replacement for EA's game.

Super Mad Champ was apparently supposed to be a spin-off *Kunio* racing game – this is backed up if you look at the strikingly similar *Shin Nekketsu Koha: Kunio-tachi No Banka* – but was later abandoned. The game itself is a solid racer set across three distinct GPs that get progressively harder.

As with *Road Rash*, players can hit each while racing, which awards you with small amounts of gold. Combat does impede your driving, however, creating a neat – and risky – reward system. Knock a biker to the ground and you can dismount from your own vehicle to continue the scrap. The game then plays out like a scrolling fighter and it's possible to kick, punch and even throw bikes at each other. You can even steal bikes too.

In addition to earning it in-game, gold is also awarded at the end of a race and can be used to buy new bikes, upgrade existing ones and fix any damage your vehicle has received. It's also needed to enter GPs. While there's a fair amount of Japanese text, it's not intrusive, meaning you can fully enjoy this bizarre, but entertaining racer.



» [Super Famicom] You can throw your bike at enemies, but you will damage it in the process.



» [Super Famicom] There are a large number of bikes to buy and they all handle differently to each other.

> "Super Mad Champ was apparently supposed to be a spin-off Kunio racing game"

RETRO STINKER

» SOUGOU KAKUTOUGI: ASTRAL BOUT

■ DEVELOPER: A-WAVE ■ YEAR: 1992

■ Although there are eight different fighting styles to master, this is a ropy fighting game with bland gameplay, disappointing animation and exceedingly clunky controls.



» GODZILLA KAIJUU DAIKESSEN

■ DEVELOPER: ALFA SYSTEM
■ YEAR: 1993

■ Fighting fans will be well served with this scrapper. The eight available monsters are extremely varied in their attacks and special moves, while the single-player mode offers a tough, but fair, challenge. The introduction of a second bar allows for desperation moves that create a fair bit of strategy during play. It's lacking in mainstream appeal, but it's certainly worth investigating if you like brawlers.



» ARAIGUMA RASCAL

■ DEVELOPER: J-FORCE
■ YEAR: 1994

■ This puzzler is based on a popular Japanese anime, which in turn was based on a 1963 novel by Sterling North. Taking control of a cute racoon you must match jars of items together as they get cleared out of a tree by a pair of squirrels. It's basically a charming version of *Plotting*, but is elevated by a two-player mode that features co-op and competitive play, as well as a fun obstacle course race.



» MAJYUU OU

■ DEVELOPER: KSS
■ YEAR: 1995

■ The best way to describe *Majuu Ou* is like *Castlevania* with a gun. It might look basic, but the tiny sprites are exceptionally well animated, and their diminutive size also means *Majuu Ou*'s bosses can be gigantic. While the gameplay is fun with atmospheric visuals and a number of different creature forms to master, it's a little too easy. As enjoyable as it is *Majyuuou* is certainly not worth the £1000 it currently sells for.



» BATTLE CROSS

■ DEVELOPER: IMAGINEER
■ YEAR: 1994

■ While this is often described as a cross between *Mario Kart* and *Bomberman*, it actually feels more like a saccharinely sweet take on *Super Sprint* with *Bomberman*-style presentation. Impressively, up to six players can participate at once and there are a large number of wacky weapons to discover. The 12 available courses will take an age to master, while a fun challenge mode adds longevity (not that it needs it).

How Rare Ruled The N64



In its glorious 30-year history Rare has gifted the gaming world with some truly incredible games. Damien McFerran speaks to the people who made it happen during what is arguably the firm's golden era

When considering Rare's history – and taking into account the company's origins as Ultimate Play The Game – it's actually harder than you think to pinpoint the studio's zenith; that period where everything it touched turned to gold and it could do no wrong in the eyes of gamers and the press. Eighties games such as *Knightlore* and *Sabre Wulf* certainly make good cases for the 'Ultimate' period, but Rare's N64 years will be considered by many as its 'Golden Era'. Firmly ensconced in Nintendo's bosom and packed with talent from all over the UK (and beyond), the firm seemed unstoppable in the mid-Nineties and effortlessly rattled off hit after glorious hit with effortless skill.

Although Rare had enjoyed a long and prosperous relationship with Nintendo for many years prior to the launch of the N64, the game which truly cemented the bond between the two was *Donkey Kong Country* on the Super Nintendo. Sporting rendered sprites and arriving on the market at a time when 32-bit consoles were gobbling up all the column inches, it was a stunning illustration of the talent Rare held within its unassuming Twycross headquarters. Nintendo spotted this talent and invested in Rare, turning it into a second-party studio and giving it the platform to expand and usher in its best years.

"It was probably a number of things that were happening at the time which all, either by design or serendipity, dovetailed nicely to create a uniquely creative environment," says former Rare staffer Chris Seavor, the man behind *Conker's Bad Fur Day*, one of the company's most unconventional N64 titles. "Nintendo had bought into Rare, paying up front for the company to expand, giving it some pretty big cushions to sit on. Rare already had a long pedigree making games, and had the pick of the bunch of eager young coders, designers and artists from across the land, and did so with abandon, quickly building a powerhouse to make whatever they wanted, with Nintendo's blessing, money and protection. And by 'protection' I mean there was no shareholder or corporate pressure to get shit out the door no matter what. It was like,: 'Be creative, take as long as it needs and here's more cash.'"

Rare becoming closer to Nintendo coincided neatly with the inception of Project Reality, which was later rechristened Ultra 64 before eventually becoming the Nintendo 64. Details of the system were sketchy in the early days, even for privileged companies such as Rare. "This kind of information often comes in stages; just an outline of what kinds of things 'Project Reality' could do at first, and then more detailed specs later," says Chris Sutherland, who spent almost 30 years at Rare and is now project director and software engineer at Playtonic Games, a studio almost totally comprised of Rare alumni. When information did appear Rare's staffers were disappointed. "At first we hoped that we could create games that had *Donkey Kong Country*-quality visuals rendered in real time in 3D," Sutherland continues. "As details emerged, though, it posed a conundrum, because there ▶



» Joanna Dark (seen here in her Xbox 360 iteration) and James Bond were two N64 heroes.



RARE ON RARE

GOLDENEYE 007

■ "During development there was a lot of internal scepticism around the game, as to whether it would get finished or, indeed, whether it would play well – perhaps arising because other teams saw only glimpses of the game. Of course the outcome was different! In fact, after release, several of the *Banjo-Kazooie* team played *GoldenEye* split-screen multiplayer every lunchtime for several years!" – Chris Sutherland



» [N64] *Killer Instinct Gold* wasn't the greatest of starts for Rare on the N64, but things would get much better.

RARE ON RARE

KILLER INSTINCT

■ "The N64 was meant to be very similar to the hardware we were using to create *KI*, however there were differences between the two systems. One was designed as an arcade machine, the other for a console. We had few limitations on the arcade machine, and so had to limit frames and optimise the game as much as possible to have it run on the N64. For instance, the arcade machine had fully rendered backgrounds. The backgrounds did not 'scroll' left and right, but played a series of frames from a sequence to give the illusion of a camera panning left/right. This gave us our great rendered background environments. However, on the N64, the backgrounds were made in sections of image files placed on polygonal meshes, so they didn't have the same degree of detail, but still looked great considering the difference between the two systems." – Kevin Bayliss

"We'd made life difficult for ourselves when building games in 3D on the N64"

Chris Sutherland

▶ was no way that the N64 could run anything that resembled those quality of visuals. By bringing *Donkey Kong Country* to the SNES we'd made life difficult for ourselves when building games in 3D on the N64."

To generate interest in its new system Nintendo needed killer software, and took the approach of pushing said software into arcades prior to a domestic launch. The forgettable driving title *Crusin' USA* was one such release, while the game produced by Rare had a long-term impact. "Rare managed to persuade Nintendo that it should make a game which represented the N64's power but which did not run on N64 hardware," says Martin Hollis, the director and producer of *GoldenEye 007*, one of Rare's most treasured games of the period. "The problem with new platforms is that first you need the hardware, then you can produce the software, and this adds a huge delay to getting to market. That delay means that customers get new hardware later and the company gets the money later. So Nintendo had some incentive to put the cart before the horse. Also Rare – namely Chris Stamper and Pete Cox – had a history in developing coin-op hardware, and there was a team with an interest in making a fighting game. These three factors came together to make *Killer Instinct* possible."

This iconic one-on-one fighter was arguably the game which gave the N64 hardware early visibility with the general public – the intro even proclaimed that it would be "available for your home in 1995, only on Nintendo Ultra 64". Given that the company was trying to ape the performance of unreleased hardware, development called for some inventive tricks. "*Killer Instinct* was a hard project and fast project, and my first at Rare," explains Hollis. "The plan was to make a new machine, based on the R4600 MIPS CPU, which was similar to the N64's CPU. Rare designed the machine, memory and motherboard – everything except the hard drive and the sound board, which I think came from Midway. I wrote the operating system, including a disc system, and for fun brought up the C compiler to target the machine. However the majority of the code was written in MIPS assembly, to get the best speed out of the machine. The hardware was basically an N64 without the graphics chip." At the time, Nintendo was understandably in no mood to highlight the fact that ▶



RARE ON RARE

BLAST CORPS

■ "One of Rare's most underrated games, and probably the one that I've returned to most often over the years, most recently in November 2015. The physics haven't aged well, but it's still as fun as it was." – Steve Ellis



» [N64] *Blast Corps* remains an amazingly inventive blaster and is crying out for an update.

RARE'S N64 OUTPUT

Every game that Rare released on Nintendo's 64-bit console

Only For NINTENDO64



KILLER INSTINCT GOLD 1996

■ Based on the arcade-only *Killer Instinct 2*, *Gold* introduced a training mode, fresh camera views and enhanced presentation. While *KI* had been the talk of the town in the arcades, by 1996 *Virtua Fighter* and Tekken had revolutionised the genre, making *Gold* feel a bit like an also-ran.



BLAST CORPS 1997

■ A game so original that there's not been one like it since, *Blast Corps* involves using vehicles to clear a path for a nuclear missile carrier. It's rarely straightforward, with puzzles being introduced which involve moving explosives or bridging gaps in the landscape. It stands as proof of Rare's talent to think up new styles of gameplay.



GOLDENEYE 007 1997

■ *GoldenEye* missed its release window and gained negative press prior to its 1997 launch. *GoldenEye 007* offers massive environments, varied objectives and a split-screen local multiplayer mode which surely made (and broke) many friendships worldwide. Needless to say, it shut the naysayers up.



DIDDY KONG RACING 1997

■ Rare's take on the *Mario Kart* formula didn't disappoint, and managed to better Nintendo's own effort in many ways. It used 3D models instead of sprites and offered a robust 'Adventure' mode which had its own storyline and boss battles. *DKR* is also notable for being the first game to star Conker.



BANJO-KAZOOIE 1998

■ This masterpiece introduced the world to Banjo the bear and Kazooie the 'Breegull', one of gaming's most iconic duos. Praised for its intricate level design, amazing visuals and typically British sense of humour, *Banjo-Kazooie* spawned several sequels and sold nearly 2 million copies in North America alone.

1996 1997 1998



BANJO-TOOIE 2000

■ The runaway success of *Banjo-Kazooie* meant that a sequel was inevitable. Major advancements include larger levels and a mini-game-based multiplayer mode for up to four players. Reviews were glowing, although critics stated it pushed the hardware too much and lacked the wow factor of the original.



MICKEY'S SPEEDWAY USA 2000

■ *This title* was published by Disney rather than Nintendo and apes the gameplay seen in *Diddy Kong Racing*. Reviews were lukewarm rather than ecstatic, with the general feeling being that the game failed to improve on previous efforts.



PERFECT DARK 2000

■ The second Rare game to require the 4MB Expansion Pak, *Perfect Dark* is considered to be a spiritual successor to *GoldenEye*. Taking the objective-based gameplay of the *Bond* outing and upping the visual complexity, *Perfect Dark* sold 3 million copies worldwide and was remastered for the Xbox 360 in 2010.



DONKEY KONG 64 1999

■ Conceived as the follow-up to the *Donkey Kong Country* series, *DK64* was intended to launch on the 64DD add-on and started production in 1997. It surfaced in 1999 on the standard N64, complete with the 4MB Expansion pak – and it required the peripheral to run the game.



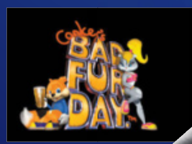
JET FORCE GEMINI 1999

■ Years before *Gears Of War* popularized cover shooters, *Jet Force Gemini* offered N64 players a similar style of gameplay. Inspired by the open spaces of *Super Mario 64* and the power-up collection of *Super Metroid*, *Jet Force Gemini* remains an incredibly addictive game.

2000 1999

CONKER'S BAD FUR DAY 2001

■ The new millennium called for a fresh approach from Rare, which had picked up on complaints that its platforming titles were all adopting the same cute and cuddly approach. *Bad Fur Day* was the opposite – it featured foul language, violence and alcohol, and, as a result, had to be published by THQ rather than Nintendo. Despite selling poorly, it has become a cult classic in the eyes of many dedicated Rare fans. An Xbox remaster entitled *Conker: Live & Reloaded* emerged in 2005.



2001



RARE GEMS

Just a selection of the many developers that made the N64 a fantastic console



THE STAMPERS

Founders (1982 – 2007)

■ Siblings Tim and Chris founded Ultimate Play The Game in 1982 in their home town of Ashby; Rare followed in 1988. After selling Rare to Microsoft in 2002, the brothers departed in 2007 to pursue other interests.



STEVE MAYLES

Artist / Character Lead (1992 – 2014)

■ Mayles – whose brother, Gregg, is still Rare's creative director – created some of the firm's most famous characters, including the Kong family in *Donkey Kong Country* and the duo of Banjo and Kazooie.



CHRIS SEAVOR

Designer / Artist (1994 – 2008)

■ Seavor worked on *Killer Instinct* before finding fame as the designer and director of *Conker's Bad Fur Day*, a title which was so outside of Nintendo's comfort zone that it passed on publishing it.



CHRIS SUTHERLAND

Engineer, Producer & Product Manager (1989 – 2014)

■ With almost 30 years at Rare under his belt, Sutherland's influence can be felt on a large number of the company's most accomplished hits.



KEVIN BAYLISS

Artist / Head Of Graphics (1987 – 2012)

■ Bayliss created characters for *Killer Instinct*, *Battletoads* and *Diddy Kong Racing* before moving into music in 2005. He recently joined some of his old workmates over at Playtonic Games.



STEVE ELLIS

Programmer (1996 – 1999)

■ Ellis was instrumental in the development of *GoldenEye* and is credited as coming up with the game's multiplayer. He co-founded Free Radical with David Doak in 1999 and later established Crash Lab with Lee Musgrave and Martin Wakeley.



DAVID WISE

Composer (1985 – 2009)

■ Wise is responsible for the soundtracks to a great many of Rare's 8-bit and 16-bit titles, and has since gone freelance. He created the music for *Donkey Kong Country: Tropical Freeze*, which was produced by Retro Studios rather than Rare.



LEE MUSGRAVE

Artist / Head Of Art (1995 – 2011)

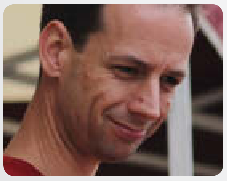
■ Musgrave worked on *Diddy Kong Racing*, *Jet Force Gemini* and *Mickey's Speedway*, amongst others. He cofounded Crash Lab with Steve Ellis in 2011 and is involved with preciousbluedot.



DAVID DOAK

System Manager / Designer (1995 – 1998)

■ Doak studied biochemistry before moving into videogames. He left Rare in 1998 to form Free Radical and founded Facebook game studio Zinkyzonk, which has since folded.



MARTIN HOLLIS

Head Of Software / Producer / Director (1993 – 1999

■ Hollis is responsible for *GoldenEye 007* and *Perfect Dark*, two of Rare's most acclaimed first-person shooter releases. He left in the company in 1999 to assume a consultancy role at Nintendo Of America before founding Zoonami in 2000. The studio, sadly, ceased operating in 2010.

> **"We each had development machines that were worth more than our annual salaries"**
> Steve Ellis

▶ Rare's arcade machine wasn't *totally* identical to the N64; *Killer Instinct* was supposed to be a demonstration of the power of the console, and Rare's part in this subterfuge was integral.

But Nintendo knew that it could not make a console successful on the merits of a single studio, which led to the formation of an elite 'Dream Team' of companies which had been deemed worthy of producing titles for the N64. It was obvious that Rare's name would appear on the list – in fact, some commenters at the time felt that the UK studio was the only one which had any credibility. "I was excited to join the 'Dream Team' as it was known at the time," says Steve Ellis, who is credited as coming up with *GoldenEye 007*'s groundbreaking multiplayer mode and is now producing games at Crash Lab, the studio he co-founded in 2011. "It felt like an incredible opportunity to be involved in something cutting edge. We each had development machines that were worth more than our annual salaries, and there was a real feeling of being there at the start of something new and exciting." Being part of this group meant that Rare was afforded privileges, such as early access to the hardware and software which would drive development. "We [had] some limited but



» Rare's headquarters are based in Twycross, Leicestershire.

valuable early access to documentation, prototypes and manufactured early hardware," says Hollis. "We got to see documentation of the Reality Coprocessor, listing all the instruction formats which I read from cover to cover at least five times. Later we saw early prototypes of the thumbstick-based joypad. This helped to a limited extent with designing gameplay, but, honestly, most of the control code for player movement wasn't written until we had final joypad hardware." Rare's input almost went as far as how the console would look in the flesh. "Tim Stamper did produce some renders of how he'd have liked the console to look physically, and I remember seeing lots of pictures of what looked like a cool spaceship-shaped console," reveals Kevin Bayliss, who worked at Rare from 1989 to 2005 and was lead character artist on *Killer Instinct*. "Much nicer looking than the N64 that was released, which, I have to say, looked really ugly in my opinion."

Despite the obvious talent which resided within Rare's HQ, the company was adapting to the move from 2D to 3D. "I think for a lot of people it was a huge challenge," admits Hollis. "You need to understand matrices, quaternions are helpful for rotations, viewing frustums, and so on – the mathematical parts were beyond many game developer's ken. The OpenGL heritage had an academic style and flavour and did not make these things easy to understand for people who did not have some mathematical training beyond the age of 18. On top of this, the machine was more complex than any previous console, as might be expected in the general trajectory of computers. As a third jump, people had to transition from predominantly 2D graphics pipelines where all the artists were making sprites to 3D pipelines where you are making 3D models, textures and animations. It's a big change which affects the skills of the whole team and means all your tools are obsolete. The final step was games needed larger teams so those who expected games to take two or three people only would have to adjust to a different system of working, with more specialisation."

The N64's aforementioned lack of power compared to the modelling workstations that *Donkey Kong Country*'s visuals were rendered on caused some headaches for Bayliss, too. "Having gained experience with 3D modelling software, we were excited about the move from 2D to 3D," he says. "However, we had been somewhat spoiled because we were modelling with curves, rather than polygons and rendering – actually ray tracing – at a high level of quality to create great looking 2D sprites for the SNES. When we first looked at the N64 we were then having to generate graphics in real time, and the specs were so limited, with very small texture resolutions for our graphics. This took some getting used to, since we'd not really had any kind of restrictions when creating our graphics from 3D software for the SNES. We even had a huge rendering server to make sure we could create our sprites quickly enough, but all of that was no longer required when we began producing real-time 3D graphics." Steve Mayles – a character artist who served at Rare for 22 years before cofounding Playtonic Games – insists that the benefits outweighed the negatives. "It was liberating to work in full 3D," he says. "The possibilities seemed endless! A lot of the early N64 stuff was a bit grubby looking, blurred textures, so we tried to avoid that. We'd look at stuff and think, 'I'm sure we can do better than that.'"

Rare stood apart from its development rivals at the time, but something it shared with pretty much ▶



RARE ON RARE

BANJO-KAZOOIE

■ "We added an 'interesting' approach to copy protection in the *Banjo* series; previously the standard approach was that if the game code detected it was probably running an illegal copy of the game, it would just stop. However, that made it easier for hackers to just find the offending lines and remove them. Instead we added code that just 'noted' the game was probably not a valid copy and it would then amend small but critical parts of the game, e.g. the player's jump distance, or character size, this rendering the game not very playable. I have no idea whether that did actually hinder anyone attempting to copy the game though!" – Chris Sutherland





» [N64] Banjo, Conker and Kazooie, hanging out at Rare's headquarters.



» Just a few of the BAFTAs that Rare has won over the years.



» [N64] *Perfect Dark* utilised the N64's Expansion Pak, but its performance stuttered.



» [N64] Bottles is feeling a little worse for wear.



» [N64] *Mickey's Speedway USA* is a fun racer.



RARE ON RARE

DONKEY KONG 64

■ "George Andreas wrote the words to the *DK Rap* and asked me to assist him with it. Grant wrote the music and organised the recording; neither George nor I were rappers so the session took ages as we were often way out of time. I suspect in the end that Grant had to do a lot of digital editing to get the vocals back in time!" – Chris Sutherland

▶ every other studio was an intense admiration for *Super Mario 64*, the game which proved to be the N64's killer app. "I took the time to play through mostly the entire game, which was no easy matter when all the hints and text are in a language you don't understand," says Hollis. "The game was polished and beautiful in many parts, with a variety of action that was unparalleled in 3D. At this time the prototypical 3D games were racing games, which are as linear as can be, arcade shooting games like *Virtua Cop* or *Time Crisis* and 3D fighting games, meaning *Virtua Fighter*. All these presented one problem, one style of action repeated as a monotone, with no meaningful freedom to roam. When Nintendo made a 3D *Mario* game it could've chosen to make something in a limited vein and control the scope of the project. Instead it grasped the future, bold with ambition, seeing the potential. It understood that 3D could mean freedom. It understood this from very early on, before *Super Mario 64* existed. It underpins its decision to add the joystick which they named '3D Stick'. It had an impact on *GoldenEye* and on my confidence to push towards what was only really dreaming, as written in my original design document for the game." Sutherland reveals that Nintendo's classic influenced his own design process, and that of his team. "When we were trying to consider gameplay questions, we'd start with 'How did *Mario 64* handle this case?' Then we'd consider why Nintendo chose that approach and then ask, 'Is there a better way?'"

Rare picked its sources of inspiration well, but there's more to the company's success with games than simply knowing where to look for good ideas and evolving them. The individual development teams were deliberately kept apart to create a sense of competition, and this had an impact on the quality of Rare's output. "The teams worked in separate buildings and there was little communication between them – this was deliberate in an attempt to avoid 'cross-pollination' of ideas," explains Sutherland. "This led to curious situations, such as where each team would create and maintain its own game engine. Ironically, in later years it actually made development more challenging, as with larger groups per project, teams would be split not just between upstairs and downstairs on one barn but also across separate barns. That may not seem to be a big change, but it meant communication which had previously been unconscious and implicit within a team had to be more conscious and deliberate."

As you might imagine, keeping teams apart meant that each became focused on being the very best. "There was rivalry, yes," says Mayles with a laugh. "Because royalty payments were only given to people based on the games they had worked on rather than the company as a whole, I think that spurred people on to make the very best product possible, often requiring many, many hours of overtime over several months – years in some cases." Bayliss feels that Rare's approach in this regard was perfect. "If I was setting up a new company to create games, I would do it in exactly the same way," says the artist, who is working along with the rest of the Playtonic team on *Yooka-Laylee*, a Rare-style platformer which was successfully Kickstarted last year. "It was always very exciting to see other team's games when they were demoing them; we never really

RARE'S COMPETITORS

How Rare's game fared against their competitors





» [N64] While *Banjo-Tooie* remains an enjoyable sequel, it does feature lots of the item collection that would put gamers off later titles in the series.

knew what was going on in the other barns because we were so focused on our own projects. I was very lucky as a director and being in management because I saw all of the games in development during weekly meetings." However, Seavor grimaces at the memory. "There were lots of rivalries between teams and by my recollection it was anything but good-natured," he recalls before admitting that it helped when it came to creating its games. "I've always had a theory about this being why Rare's games were good. We weren't competing with some faceless company out in the ether. We were competing with those buggers in the other barns."

It was during the N64 era that Rare would relocate from its farmhouse location to the purpose-built complex it currently occupies, just a short distance down the road. Set away from the sleepy village of Twycross and surrounded by lush, verdant countryside, it's an impressive structure, but Sutherland admits that the move didn't have an instant impact on how Rare's staff operated. "Initially it made little difference to game development – but that was very deliberate, as the building mimicked the barn format that had existed at the farmhouse," he says. "It lost its intimacy," laments Seavor. "At the farm I felt like a surrogate son in a larger family – a badly behaved one, I suspect was the impression – but it meant you had a completely different attitude to the work. I practically lived at the farm for those first few years and it wasn't a problem. My friends were there, it was warm, there was free food, and everyone mucking in together to make games; everyone was at the coalface. No bullshit meetings, no dead weight. When we moved to the new place that all disappeared. The company got really big and in the end you were just a part of some bigger ▶

RARE ON RARE

BANJO-TOOIE

■ "I remember the biggest source of bugs for me during our test phase was the Clockwork bomb; this was because it could be controlled to walk into other areas of the game and trigger all sorts of problems. I don't expect we got them all…" – Chris Sutherland







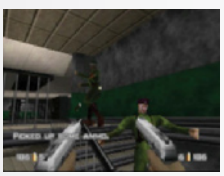
» [N64] *Conker's Bad Fur Day* was an 18-rated game. As a result it was published by THQ in Europe instead of Nintendo.

machine, even before Microsoft came along. That's progress I suppose."

As the N64's library grew, a noticeable pattern began to emerge; Nintendo would release a successful title, only for Rare to produce a thematically similar offering which – in the eyes of many players – proved to be the better choice. *Super Mario 64* was followed by the likes of *Banjo-Kazooie* and *Donkey Kong 64*, while *Mario Kart 64* was lapped by *Diddy Kong Racing*. "It wasn't so much an attempt to 'beat' Nintendo, we just wanted to make the best games possible," says Sutherland. "However, as mentioned previously, we did use Nintendo titles as 'reference standards' when we were trying to solve gameplay problems." He also feels that the company's success during the 8-bit and 16-bit years meant it could operate in a way which ensured quality, but was financially out of reach for rival studios, and perhaps even Nintendo itself. "We were developing with larger teams and also in many cases larger development times – *Project Dream* was effectively a year of 'prototyping' work that became *Banjo*, and a number of other titles also took longer. For many companies that wouldn't have been viable, but I'd assume the success of earlier NES and SNES titles made that possible."

While this one-upmanship may have ruffled some feathers at Nintendo, the company's higher-ups most likely wouldn't have minded – Rare's titles were making the N64 even more attractive to players, and were selling in their millions. "I do know that *GoldenEye* sold more copies than any other Rare game," says Hollis. "It also sold slightly better than *Super Mario 64* and *Mario Kart 64* in North America." Despite its status as a second-party studio, Rare still managed to maintain some distance from its Japanese partner. "From the development team's perspective, there appeared to be minimal influence from Nintendo," says Sutherland. "However, [the Stampers] would have kept in contact with key Nintendo staff during development so in reality feedback from Nintendo would have been filtered through them. For example, the ground slap that Donkey Kong performed in the *Donkey Kong Country* series originated as a suggestion from Miyamoto."

Nintendo's own IP was one thing, but Seavor recalls that the Japanese company was very much hands-off when it came to Rare's own creations. "I can really only speak of my own experience, but I found the various visits from the big wigs at Nintendo to be relatively infrequent," he states. "At no point did anyone from Japan or Redmond dictate what content would and would not be expected of the game – before the fact, anyway. After the fact there was a little bit of jiggling, but this was usually to stop us being sued! Miyamoto did come over from time to time, but his interest was never in telling us what we should be doing. I felt he was more interested in seeing what we were doing and getting excited about the process and discipline of how we were making games." Does Seavor feel that



RARE ON RARE

GOLDENEYE 007

■ "One concrete thing I can point to in *GoldenEye* is the objectives which come straight from *Super Mario 64*, although the details of implementation are slightly different. A second momentous thing is the architecture or topology of most of the levels, which we could have scaled back and linearised as we realised the difficulties they created, but instead I encouraged people to support and even add multiple routes, manifold pathways with action and keep curious backwaters to the levels." – Martin Hollis

RARE ON RARE

CONKER'S BAD FUR DAY

■ "It was *Conker* (as *Twelve Tales*) that was responsible for the visual direction change for *Banjo-Kazooie*, taking it from a mostly side-on game that used rendered 2D 'billboards' to the 3D explorathon we know today." – Chris Sutherland



» [N64] *Conker's Bad Fur Day* was a great way for Rare to end its tenure on the N64.





“Wave Race 64 was originally with boats until Tim suggested jet skies”

Chris Seavor

Rare was treating Nintendo as its biggest rival? "Of course," he replies, but asserts that it really didn't matter, given the closeness of the two firms and what they both stood to gain from a fruitful working relationship. "Graphically I think it's safe to say we beat them hands down," he continues. "Gameplay-wise, we gave them a run for their money, but we were all one happy family so everything was a boon. Everybody won: *Wave Race 64* was originally with boats until Tim[Stamper] suggested jet skis, and *Donkey Kong Country*'s DK didn't have a tie until Miyamoto added one."

As the war between Sony, Sega and Nintendo rolled on, Rare's N64 output became the envy of the industry and the jewel in the console's crown. "We had a number of great titles for the console," says Bayliss. "It is probably true that we were really on a roll with the N64, with the likes of *GoldenEye 007*, *Diddy Kong Racing*, *Donkey Kong 64*, and *Jet Force Gemini*, we had a great range of different games, at a high point in the gaming industry. It was a great generation to be involved with." It was clearly a swell time to work at Rare, too. "We probably didn't appreciate it enough at the time, but the Stampers did a fantastic job of shielding the team from the external pressures that they must have been experiencing," says Ellis. "We were able to work on the games until they had reached the standards that we were striving for, rather than having to wrap things up at some arbitrary point to hit a prearranged release date. Also – and again, I don't think we appreciated it enough at the time – we were well rewarded for the work that we did." Mayles is in agreement. "People were rewarded based on sales of their game, so if you were on a multimillion selling game, then great." Nowhere was this sense of accomplishment more evident than the company car park. "I remember when joining you got allocated a car space," says Gavin Price, another former Rare staffer who is now managing director and creative lead at – you guessed it – Playtonic. "It was roughly based on time at Rare, so new starters like myself were parked further away. As you walked closer to the building and looked over at the cars, they just kept getting better and better and better until you were passing Porsches, Lamborghinis and Ferraris right at the other end. It was evidence the Stampers did reward staff when the games did well and it had a profound, aspirational effect on myself and many others to work hard and reap similar rewards."

As the new millennium dawned Nintendo would transition from the N64 to the GameCube, with Rare taking its N64 project *Dinosaur Planet* and transforming it into *Star Fox Adventures*, its final game under Nintendo's wing. The Stampers offered Nintendo the chance to buy out the remaining 51 percent of company stock, but the Japanese giant passed. Microsoft stepped in and paid $375 million for sole ownership of the studio in 2002. Since then, it could be argued that Rare has failed to replicate the commercial and critical success of its Nintendo days, something the recent Xbox One compilation *Rare Replay* hammers home a little too effectively. But the firm still has a solid reputation and plenty of talent and resource, so could it reach those stunning highs again? "I think it's unfair to compare the Rare of today with the Rare of the N64 days," replies Mayles. "The Rare of today isn't independent, most of the staff are different, triple-A games are more expensive to produce, more people are making more – games, making it harder to stand out now. But all it needs is another great game, so let's keep our fingers crossed for *Sea Of Thieves*." *



» Banjo and Kazooie were given a drastic makeover for their last game on Xbox 360.



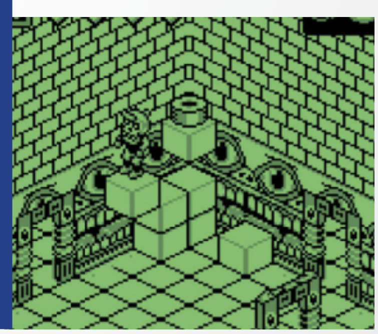
» Rare's reception contains merchandise and games of everything it has worked on.

NOT JUST N64 GAMES

More games that Rare produced

While the N64 was undoubtedly Nintendo's primary focus during the mid-to-late Nineties, it could be argued that the Game Boy Color was just as important to the firm. Rare had supported the monochrome Game Boy hardware in the early Nineties with games like *WWF Superstars*, Battletoads, *Super R.C. Pro-Am* and *The Amazing Spider-Man*, and it would go on to create a series of titles for its colour successor, including handheld versions of *Perfect Dark*, *Donkey Kong Country* and *Mickey's Speedway USA*. The studio would supply a similar level of support to the Game Boy Advance, even after Microsoft assumed control. At a time when most studios treated handhelds as a dumping ground for shovelware, Rare kept the quality bar surprisingly high.

- **MONSTER MAX** (Game Boy, 1995)
- **DONKEY KONG LAND** (Game Boy, 1995)
- **DONKEY KONG COUNTRY 2: DIDDY'S KONG QUEST** (SNES, 1995)
- **KILLER INSTINCT** (SNES, 1995)
- **KILLER INSTINCT** (Game Boy, 1995)
- **KEN GRIFFEY, JR.'S WINNING RUN** (SNES, 1996)
- **DONKEY KONG COUNTRY 3: DIXIE KONG'S DOUBLE TROUBLE!** (SNES, 1996)
- **DONKEY KONG LAND III** (Game Boy, 1996)
- **CONKER'S POCKET TALES** (Game Boy Color, 1999)
- **DONKEY KONG GB: DINKY KONG & DIXIE KONG** (Game Boy Color, 2000)
- **PERFECT DARK** (Game Boy Color, 2000)
- **DONKEY KONG COUNTRY** (Game Boy Color, 2000)
- **MICKEY'S SPEEDWAY USA** (Game Boy Color, 2001)



Omikron: The Nomad Soul



Denis Murphy digs into the story behind the largely forgotten and groundbreaking game that musical legend David Bowie was involved with, Omikron: The Nomad Soul

It started as a risk for Olivier Demangel, cofounder of what would become Quantic Dream and project manager on *Omikron*. In 1995 Olivier was contacted by David Cage who, at that point, was a musician. But Cage had bigger plans, and with a sum of money given to him by his father, he gathered together a team of six developers to bring an idea he had to life. Olivier, fresh off starting a new position at Ubisoft in Paris after a stint at Cryo, took a chance and started the now-iconic Quantic Dream with Cage. With a script written by Cage serving as a basis, the team were instructed to create a demo of what would eventually become *Omikron*. However, with a dwindling budget and little time on its hands, the pressure was on.

Olivier recalls, "The demo presented an open world. You could basically walk around in a city and have some limited interaction with the environment around you. It was probably one of the first 3D open world attempts ever, and this was some years before the release of *GTA III*." With a budget to last it six months, the team managed to secure Eidos as its publisher late into the fifth month of its budget deadline. *Omikron* was massively ambitious for its time, and blended an open world, both third-person and first-person gameplay, an immersive story that mixed science fiction with fantasy and a groundbreaking NPC possession game mechanic to the backdrop of a stunning multi-region futuristic world. Yet, its most ambitious aspect is its inclusion of music icon David Bowie. Compared to other gaming titles that featured celebrities, however, Bowie was actually incredibly hands-on with *Omikron*.

Phil Campbell was the senior designer on *Omikron* and a fan of Bowie since he bought



» [PC] Within the story of *Omikron*, the game itself is a conduit between worlds, and this is touched on at the start of the game.

the album *Aladdin Sane* in 1972, he worked closely with Bowie in the early stages of development. "Firstly, we talked about licensing tracks," he remembers. "We talked about the kind of music *Omikron* might have – and I remember suggesting a number of relatively 'heroic' tracks from his back catalogue – obviously *Heroes* and also *Strangers When We Meet* as a kind of uplifting backdrop to the *Omikron* revolution. We were as surprised as anyone when Bowie suggested writing a whole 'world' of original music for the game!" Subsequent meetings happened in a rented apartment in Paris, and it's here in which Bowie was fed an array of concepts and artwork from *Omikron*, well before he wrote a single note of the music that would populate its world. During these sessions, Bowie came up with the idea for The Dreamers, a fictional band within the world of *Omikron* whose lead singer was a younger version of Bowie himself. Toying with the idea of existing within this virtual world, Phil says, "Bowie was intrigued that this 18-year-old alternate version of himself could make music and play concerts in this alternate dimension/reality, and liked the notion that he was some kind of a psychic and could bounce these performances back and forward to Earth." Keen to immerse himself within the world of *Omikron*, Bowie told Phil that he was interested in "going into the game as David Bowie, losing that persona there in *Omikron*, and re-emerging outside the game and back in the real world as David Jones again." Contrary to what some might assume, Bowie knew what he was getting into with *Omikron*. He was always at the cutting edge of technology, which came to a head with the launch of BowieNet in 1998, an ISP that also served as a fan club for the man himself. The service eventually shut down in 2012, but still serves as a reminder as to how ahead of the curve he truly was.

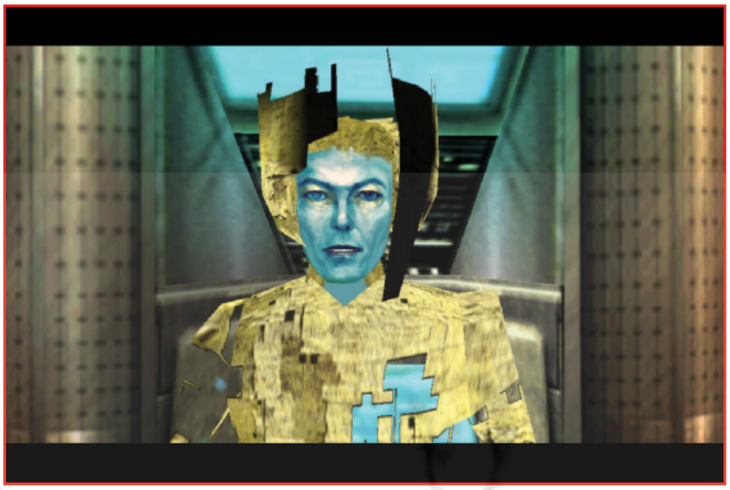
With *Blade Runner* serving as a major influence for much of the staff at Quantic Dream, the game set itself inside the city of Omikron, which is comprised of five regions; Anekbah, Jaunpur, Qalisar, Jahangir and Lahoreh. As inhabitants of each area are forbidden to leave their respective areas, each sector looks and feels utterly unique, from their culture, architecture, and right down to their religions. Ruled by an oppressive government that itself is controlled by Ix, a powerful supercomputer, *Omikron*'s world is atmospheric, layered with texture, a little off-the-wall, filed with ▶



» [PC] Long before you get into a real hand-to-hand fight, you can train yourself in a simulator.



» Bowie invited Phil to a few of his concerts. Phil is pictured here with Bowie and his starstruck wife.



» [PC] David Bowie's secondary role in the game is Boz, the entity that leads the anti-government group The Awakened.

> **"We were as surprised as anyone when Bowie suggested writing a whole 'world' of original music for the game"**
> Phil Campbell



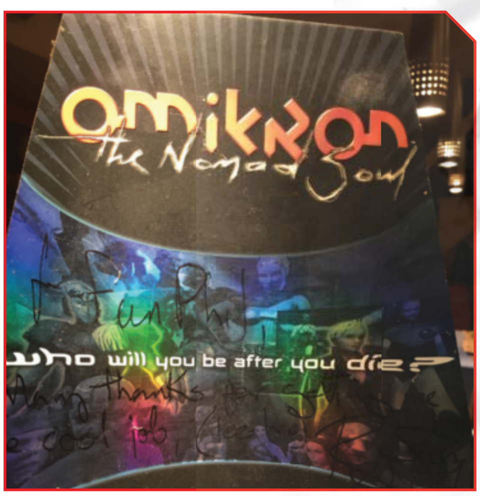
OMIKRON: THE NOMAD SOUL101

■ Featuring the music and likeness of David Bowie, *Omikron* placed the player within a vibrant and atmospheric futuristic open-world, and allowed them to jump between the bodies of NPCs throughout the city. With a story focusing on an oppressive government and nasty demonic activity, *Omikron* was truly ahead of its time.



IN THE KNOW

- **» PUBLISHER:** Eidos
- **» DEVELOPER:** Quantic Dream
- **» RELEASED:** 1999
- **» PLATFORM:** PC, Dreamcast
- **» PLATFORM:** Adventure



» Phil stayed in touch with Bowie up until the last few years. This memento from Bowie, given to him after development, is one that Phil is quite proud of.



BOWIE'S MUSICAL LEGACY

The games that feature songs from the legend himself





LET'S DANCE

■ With *Lego Rock Band* in 2009 came a hefty soundtrack. One of them was Bowie's classic hit *Let's Dance*, which appeared on the album of the same name back in 1983. Featuring a Lego version of Bowie himself, complete with blonde hair, a white shirt and an open dickie bow.

FASCINATION

■ There was nothing quite like driving through Liberty City for the first time only to be greeted by *Fascination*, a track from Bowie's *Young Americans* album. What's more is that it is played on Liberty Rock Radio, a radio station hosted by Bowie's former collaborator Iggy Pop.

THE MAN WHO SOLD THE WORLD

■ Hideo Kojima is no stranger to referencing the artist's work in his games. Most recently, however, Bowie's *The Man Who Sold The World* found its way into *Metal Gear Solid V*, serving as one of the game's main themes. *Diamond Dogs* also features – albeit in name – being the namesake of Big Boss' mercenary force.

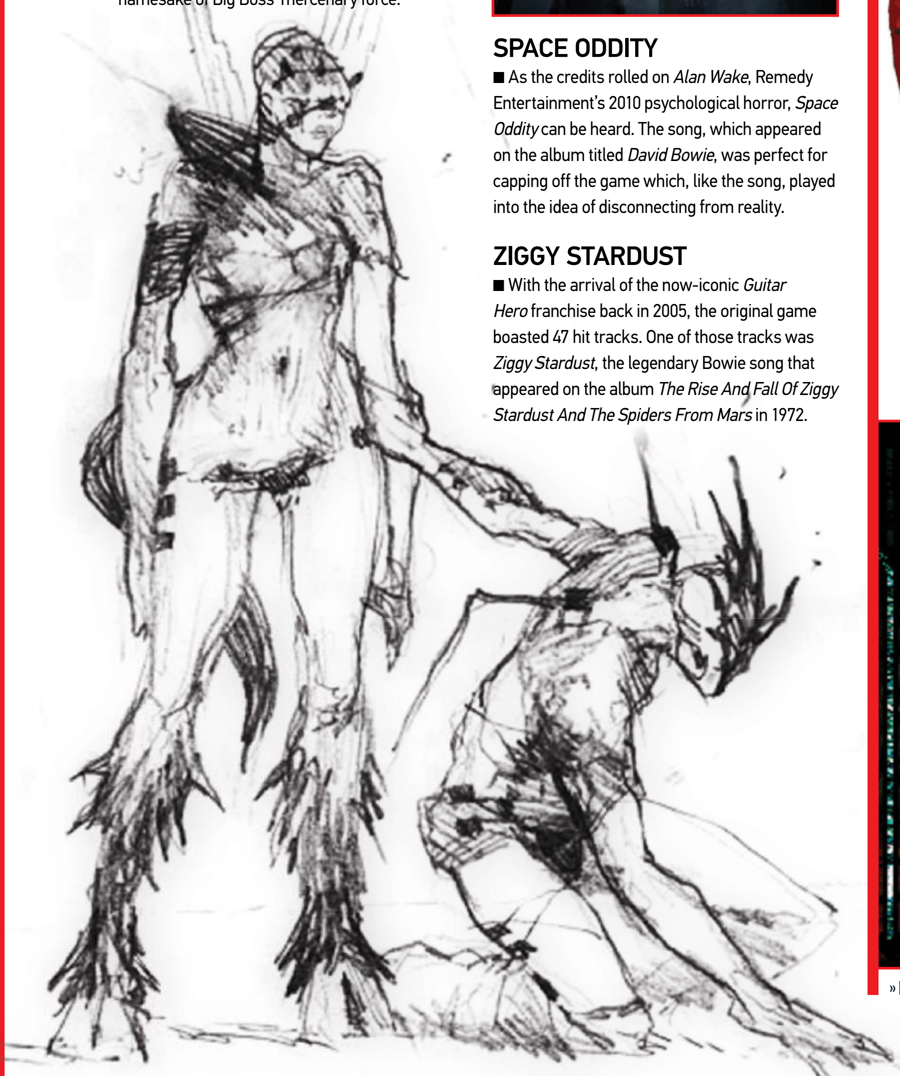


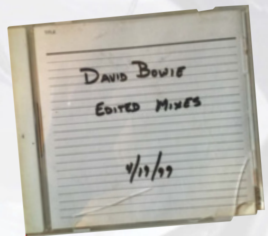
SPACE ODDITY

■ As the credits rolled on *Alan Wake*, Remedy Entertainment's 2010 psychological horror, *Space Oddity* can be heard. The song, which appeared on the album titled *David Bowie*, was perfect for capping off the game which, like the song, played into the idea of disconnecting from reality.

ZIGGY STARDUST

■ With the arrival of the now-iconic *Guitar Hero* franchise back in 2005, the original game boasted 47 hit tracks. One of those tracks was *Ziggy Stardust*, the legendary Bowie song that appeared on the album *The Rise And Fall Of Ziggy Stardust And The Spiders From Mars* in 1972.





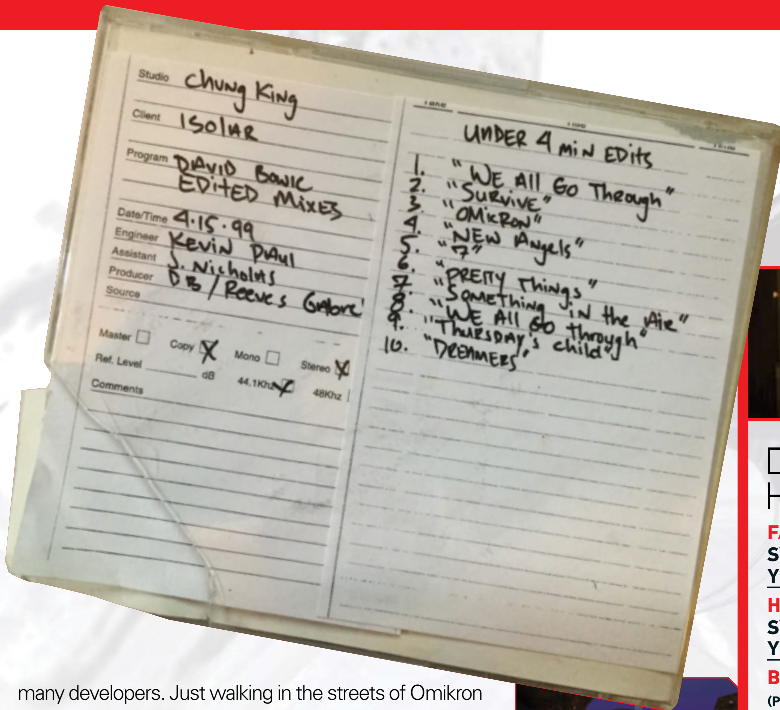


interesting characters and one to truly get lost inside. The opening scene of *Omikron* is striking as it doesn't just break the fourth wall – it shatters it. As the game begins the player is greeted by Kay'l 669, a police officer from the city of Omikron. Directly addressing the gamer, Kay'l urges the player to take control of his body in order to investigate a string of gruesome murders happening in his world. The serial murders are merely a gateway to something far more deadly, however. But before that is revealed, the initial few hours of *Omikron* are self-contained, compelling and wondrous, especially when you happen upon your first secret concert by The Dreamers. The big hook of the game was the 'possession' game mechanic, which effectively let the player possess a number of NPCs that traversed *Omikron*'s busy streets. Olivier's reasoning behind it was simple, as he explains, "Who never dreamt to be someone else? We had this possibility in *Omikron*, having a new life, a new family, a new flat, etc., I think it was a unique feature of gameplay".

However, though the visual feel of *Omikron* and its Bowie tracks progressed normally, the various gameplay types were harder to pull together without hardship. Olivier recalls, "There were problems in terms of memory, especially on the Dreamcast, with all these animations for the fighting parts. We were also undecided between FPS or TPS for the shooting parts. You then have to think about the right balance between all these different gameplay elements, and to alternate through these parts in connection with the storyline." *Omikron*'s programmer, Frédéric Hanoulle, echoes Olivier in saying, "Members of the development team worked on the various different gameplay styles as if it were a challenge: they were competing between each other to make *Omikron* the best it could be! The result was well balanced and cool." Another issue was the cancellation of the PlayStation version which, after the team worked on it for a number of months, fell by the wayside in order to focus on a Dreamcast port, as Eidos believed it would ultimately garner more sales. That said, the PlayStation version of the game got so far into development to the point in which Bowie effectively remixed and recut all of his tracks in order to have them fit on a PlayStation disc, next to the already



» [PC] Gunplay in *Omikron* is often sluggish and the final boss fight is near-impossible, which often sours the game for many.



"The last few chapters of the game skip by a lot faster than what was intended"
Phil Campbell

memory-intensive game itself. The resulting tracks sound different as to what can be heard in the game today, and reside with Phil, who was Quantic Dream's resident Bowie superfan. To top all of these woes, a higher-up in Eidos was unhappy with the design of the demon that attacks the player when they first enter the world of *Omikron*. Citing Tim Curry's character, Darkness, from *Legend* as a better basis for a design for the demon, Eidos insisted that Quantic Dream change the creature mere weeks before it was released.

In terms of cut content, it seems that Cage's vision for *Omikron* was far more in-depth compared to what we eventually got. Phil explains, "As we ran out of time, we had to really pare down the environments and streamline the action. The last few chapters of the game skip by a lot faster than what was intended. The love and attention paid to the first three environments you visit was really to be replicated in many of the later areas, but we simply ran out of time. Whole volumes of David Cage's original design still remain unimplemented!" That said, Phil is adamant that Bowie's involvement in the game opened up new avenues that built of Cage's original plan. Phil says, "It was more a case of the opposite when we got Bowie involved on the music side of things. We had to figure out how to integrate such a massive personality into the game. The music inspired a whole new area for exploration – search the world for Dreamers concerts, pilfer character's record collections in their apartments, etc.. I would have liked to do more with the Dreamers' concerts, with more real-time movement and such. Now we look back and cringe at the polygon counts, but those were pushing it back in the day!"

Apart from the fact that time constraints led to the final portion of the game breezing by far more quickly than was intended, *Omikron* ultimately came together in the end. Sales were decent in Europe, but critics were divided on whether *Omikron* was truly groundbreaking. That said, Phil, Olivier and Frédéric certainly aren't so torn by that notion. Phil reflects, "*Omikron* came before the more popular open worlds of today. I think it inspired many developers. Just walking in the streets of Omikron today brings it all back, the music, the vivid characters, the weird font. In fact, the adventure part of the game is still strong and remains compelling – as do many of the terrific performances we coaxed from our actors." Much like Olivier, Frédéric names *Omikron* as a precursor to the likes of *GTA* saying, "*GTA III* was released with the same idea of providing the gamer with various ways of playing. Many people loved to play our game and many would certainly like to play it again with up-to-date graphics and a strong team." Olivier's view on *Omikron* falls in line with the games idea of drawing the player into the experience because, as he puts it, "I can imagine what *Omikron* would be now with the current hardware, and what I consider the future of gaming, Virtual Reality."

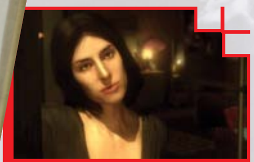
With the passing of David Bowie came a fresh new focus on *Omikron* by the gaming media. Though it is sadly seen by critics as a game that "tried too much", by fans it will go down in gaming history as an imperfect masterpiece. For Phil, however, his fond memories often reflect on meeting Bowie's wife, Iman, working with the artist in that small apartment in Paris, hearing an near endless stream of Bowie's take on his track *Seven*, being invited to a few concerts and introducing his wife to his hero. While the world lost a genius in Bowie, his undeniable stamp on the gaming world and his very existence within *Omikron* remain, now possibly stronger than ever. To sum up Bowie's influence on *Omikron*, Phil nails it by saying, "*Omikron*, in part, is a game about leaving your earthly self behind and inhabiting a whole range of characters in another dimension. Perfect for Bowie, who often removed himself from his music equation by creating characters to be his 'voice'… And who better than the 'Starman' himself to create the music for another dimension!" Who better, indeed. *



» [PC] Collecting flyers across Omikron helps you track down secret concerts by The Dreamers, the in-game band that showcases some fantastic Bowie tracks.



» [PC] *Omikron* is always a little bit off-the-wall, as by the time you fight a towel clad men in the shower, it is nothing too special.



DEVELOPER HIGHLIGHTS

FAHRENHEIT
SYSTEM: PS2, XBOX, PC
YEAR: 2005

HEAVY RAIN
SYSTEM: PS3, PS4
YEAR: 2010

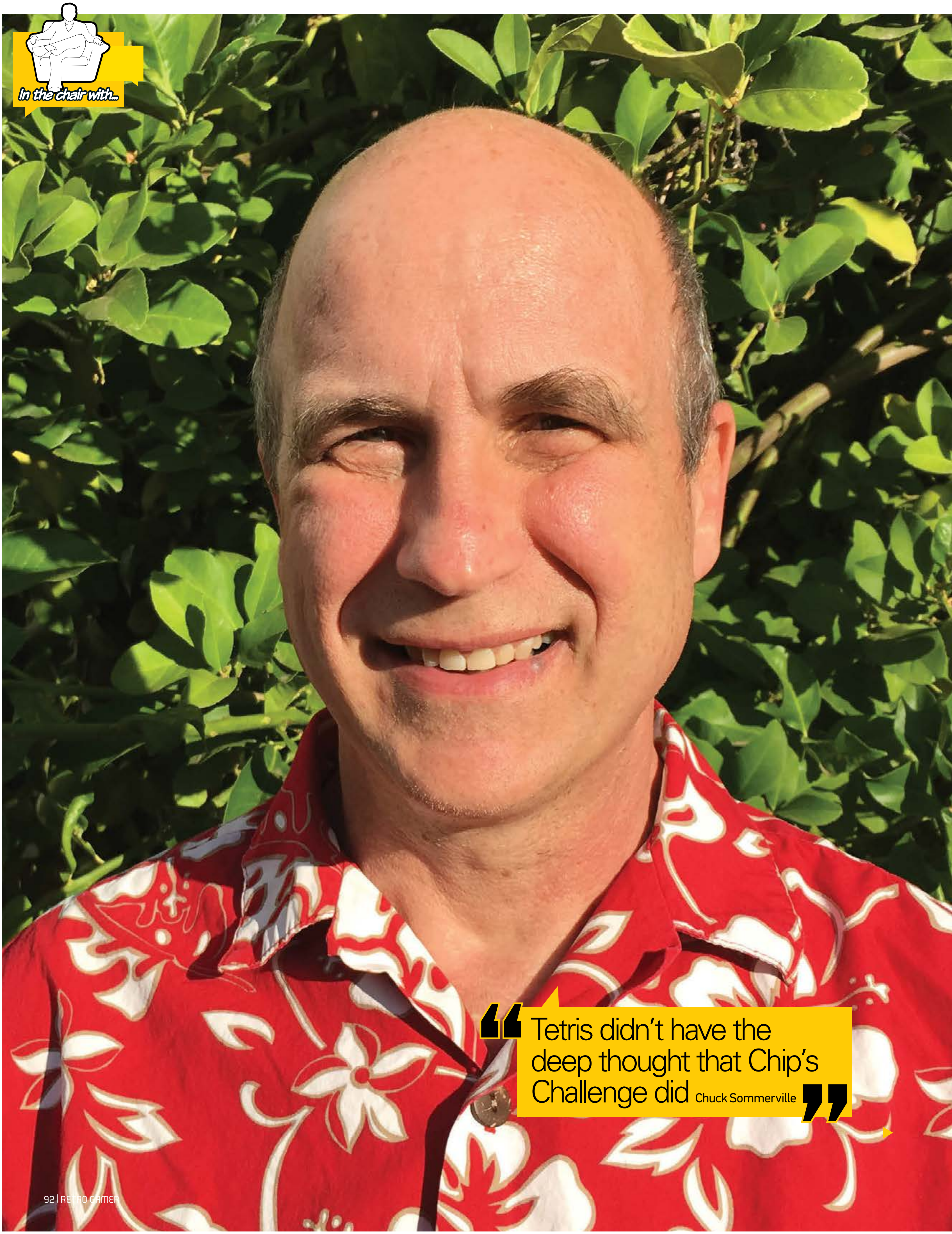
BEYOND: TWO SOULS
(PICTURED)
SYSTEM: PS3, PS4
YEAR: 2013



FROM THE MIND OF DAVID CAGE

■ Since *Omikron* was released, Quantic Dream has developed four other games, including its upcoming Playstation 4 title, *Detroit: Become Human*. In contrast to *Omikron* its other games *Faherenheit*, *Heavy Rain* and *Beyond: Two Souls* were linear experiences, and arguably focused too much on narrative instead of gameplay, something which *Omikron* often experimented with.





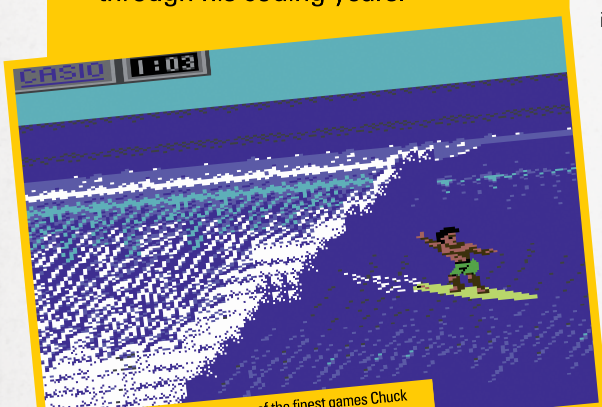
“Tetris didn’t have the deep thought that Chip’s Challenge did” Chuck Sommerville

In the chair with...

CHUCK SOMMERVILLE

Despite being best known for designing Chip's Challenge, Chuck Sommerville has worked on a large variety of gaming genres in a career which goes right back to the early Eighties. David Crookes throws some questions his way

You could never accuse Chuck Sommerville of being a one-hit wonder, even though he will be forever associated with one particular puzzler. What you *can* say, though, is that he does appear to have been ignored. For this is a man who has contributed greatly to the history of gaming and yet he doesn't even have a Wikipedia page to call his own. It's not that he's shy, far from it. In the course of our interview, he is sharp, witty and keen to share insights into a career which he had – until recently – left behind. It took the release of *Chip's Challenge 2* on Steam last May to once again shine a spotlight on him and the game that truly made his name. But we're glad it did and here he takes us on a fascinating journey through his coding years.



» [C64] *California Games* was one of the finest games Chuck worked on. He also worked on many others in the *Games* series.

Your first published game was *Snake Byte* for the Apple II but how did you get into writing games?
Well, it's really a question of how I got into programming, and it started out back when I was in Junior High. There was this three-year study in the early Seventies called 'Talented And Gifted' which wanted to look at whether giving special classes to kids who showed promise would make them learn faster. I enrolled on a computer programming course and I really took to it. I wrote my first game back then; a number guessing game where the computer would tell you if you were too high or low. I eventually ended up getting my own computer, one of the first Apples.

Were you excited by computers and their seemingly limitless potential?
In my head I was already designing games before I even got my first computer. My dad got me interested in machine language because he started studying it and I could see the speed of stuff written in it. I began reading the source codes of machine language programs that were published in *Byte* magazine and things like that until I understood what was going on in the processor, and that's how I learned 6502.

So at what point did your work start coming to people's attention?
I was just writing stuff for fun and then there's this guy who decided to start a software company in my home town of Pennington, West Virginia. He wanted to sell statistical analysis software and he was interested in point spreads on football games. He was asking around, looking for good programmers for the Apple II and people were pointing at me. He took a couple of the games I'd written and he tried to sell them on cassette.

Did they succeed?
I actually made a little bit of money from him, maybe $500, not a lot. But then when I got to college I met this guy named Mark Goodman who was writing games for Adventure International. I asked him about the techniques he was using and I decided that I could write at least as well as he could. My friends in college challenged me and I said I could write a game in 30 minutes so I wrote the first version of *Snake Byte* in BASIC and it ran at low res on the Apple computer. The guys in the dorm loved it. They played it a lot so I polished it up and Sirius Software published it.

Where did you get the idea for the game from?
I'd seen something like it on a business computer at a computer store that I would visit and it was really primitive, like something you'd go on to see on a Nokia phone. I thought it was kind of boring so I said, let's make it more challenging. I started putting walls in and a progressive level system. I made it a very social game. Me and my buddies would sit around the dorm room and we'd have fun playing this game.

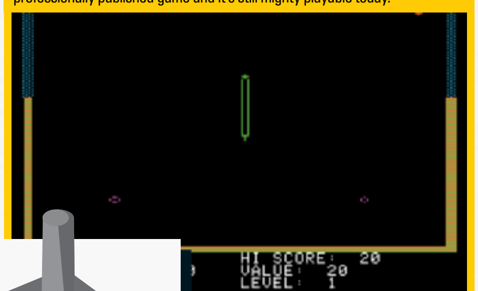
Did you visit the arcades a lot too?
That was more of a family thing because we didn't have an arcade where I grew up. I remember one Summer there was a big arcade at the beach. My dad and I would go visiting and play games together. He loved one by Atari called *Tank 8*. It had a big, horizontal colour screen and up to eight players could sit around it, each with two sticks that would move forward and backwards for driving a tank around. I liked the player-versus-player aspect of it and how you could manoeuvre yourself in a way that they couldn't get you but you could get them. Looking back. It felt like *Doom* only in slow motion.



» [C64] *California Games* was one of the best games in Epyx's *Games* series and had a range of great events to participate in.



» [Lynx] *Chip's Challenge* was the Atari Lynx's top puzzler and it cemented Chuck Sommerville's reputation.



» [Apple II] *Snake Byte* was Chuck Sommerville's first ever professionally published game and it's still mighty playable today.



You next game was *Gruds In Space* and it was very different to your first, wasn't it?
Yes, in fact other than the *Games* series I did for Epyx, there was a fair amount of variety in what I put out. By this time, I'd been getting free titles from Sirius Software and one of them was an adventure called *Blade Of Blackpoole* by Tim Wilson. I'd been playing different adventure games because I enjoyed them but – and this might seem disrespectful to Tim Wilson – I felt if Sirius was willing to put that game out then I could do an adventure game that was at least as good.

We see you made that game with someone else. Wasn't that Joseph Dudar?
He was a really good friend in college – a Computer Science major while I was an Electrical Engineering major. He'd recently burned out at Georgia Tech because he'd tried to go the whole thing without taking a break, afraid that if he stopped he would quit. When he did end up dropping out and he was living with his parents without a job, I asked him to help me write the game. I needed the game to maintain me through the winter semester, although I'd been working as an intern for IBM too. Anyway, Joe joined me and we spent three months writing this game. I did all the coding and he wrote the story and drew all the artwork. Sirius published the game.

That game was ported to the Atari 800 and the C64. Were you growing in confidence?
Yes, I mean Sirius said they wanted me to port the game to the Atari 800 and the Commodore 64, two machines that I knew almost nothing about and I said okay. I went out to California and did the work from their offices. By this time I'd also done some work for Sierra On-Line although the game I worked on was no good so they didn't publish it. Porting *Gruds In Space* on machines I knew next to nothing about was interesting and challenging. After that I got offered a job and I asked for $20,000 a year which is what I felt I'd earn when I left college. They said it was okay and I dropped out of schooling and never went back.

How did that go down with your family, were they disappointed at that?
Well, you know, it's kind of interesting. My parents had been paying for my college education up until I started receiving money off *Snake Byte*. Then they said, 'Now you're making money, you can pay for your education." So at the point I had to make the decision I thought, 'Well, I can either get a job making money or I can stay in college and spend money on my education.' So that was part of my decision to leave college, because I was now having to pay for it. But my dad made a very interesting comment: he figured there were probably only about 100 people in the world doing what I was doing so there wasn't a lot of competition and he said, 'Sometimes you have to strike the iron while it's hot.'

Could you see the great future potential for videogaming?
No. I figured that it would be outlawed, that somebody would say, 'Oh, it's the devil's work,' or, 'It's taking too much time away from what people are doing,' or *something* would happen.

Right at that very time, there was the videogame crash. Did that worry you?
I was at Sirius for a few more months before it took a nosedive and crashed, but that was mostly to do with a bad business deal that they made with Twentieth Century Fox which ended in a lawsuit during which Sirius lost lots of money. I ended up writing rendering software for newspapers for a couple of weeks and then Jerry Jewell, Sirius' co-founder, called me up and said he had a gig with Epyx as a project manager and did I want to write games again? I did and so I quit and followed him to Epyx, although I worked out of



FIVE TO PLAY

The most important games of Chuck Sommerville's impressive career

DESTROYER 1986

■ Chuck threw himself into the coding of this 2D combat simulator which was set in the second world war. He didn't design the game – that was down to Michael Kosaka – but he did display a knack for being able to pull off multiple scenarios that required some complex control methods while still being able to make it accessible to all.





CALIFORNIA GAMES 1987

■ Epyx became known for its *Games* series and Chuck had his hand in many of them. *California Games* was a pinnacle for the franchise. The game combined superb animation with varied challenges and is one of the best sporting titles of all time.

CHIP'S CHALLENGE 1989

■ While it's fair to say this 2D top-down game lacked any graphical wow factor, it more than made up for it with extremely well-constructed mazes strewn with enemies and obstacles as players looked to collect a certain number of chips and make their exit.



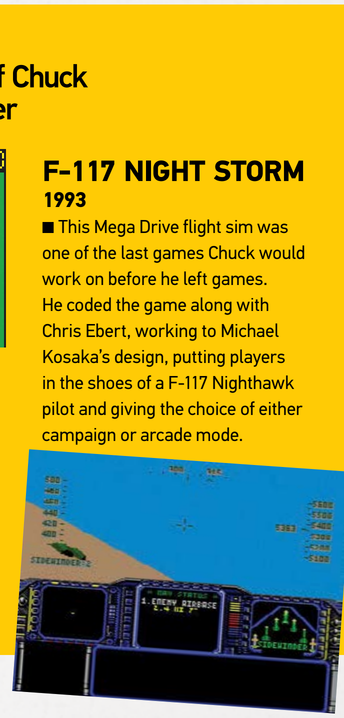


ZARLOR MERCENARY 1990

■ This shoot-'em-up may run rather slowly and so take away an edge to the game that speed would undoubtedly have brought, but it did satiate the appetite of Lynx players crying out for a shooter. It also, once again, shows Chuck's willingness to be versatile.

F-117 NIGHT STORM 1993

■ This Mega Drive flight sim was one of the last games Chuck would work on before he left games. He coded the game along with Chris Ebert, working to Michael Kosaka's design, putting players in the shoes of a F-117 Nighthawk pilot and giving the choice of either campaign or arcade mode.





my apartment in Sacramento whereas they were located over in the Bay. They wanted me to port their *Summer Games* title to the Apple.

Did you relocate in the end?
Yes, it got a bit lonely even though we did hire an additional programmer. Jerry had decided to leave Epyx and we both set up our own studio but we didn't get any contracts. After a couple of months living off my credit card, I told Jerry I couldn't do it any more and Epyx hired me back.

Why did your venture fail, do you think?
Jerry's great as a project manager but as far as drumming up business and getting work for us in studios, he wasn't very good. We were trying to come up with new products rather than just getting contracts and it just wasn't going anywhere, I was also trying to learn the PC which was a terrible machine at the time. It was just awful.

Did you feel more comfortable working in at Epyx? Did you have freedom without the worry of where the next pay cheque was coming from?
I wouldn't say it was freedom so much at Epyx. Most of the stuff that we were doing was demanded by marketing which would go out and ask their distributors and their sales people what they wanted. It was a rare thing to be able to do something that hadn't been done before. *Destroyer* was a case in point. It was designed by Michael Kosaka who is an amazing artist. The interesting thing was the schedules on it got really tight and I said, 'Look, I can't write all this code and test it.' So they hired somebody to test the code, and as far as I know it was the first time Epyx had ever hired a professional tester.

Had games been going out without having been checked properly?
Well, no, games were checked properly, because the programmers who were doing all the testing, but yes, there was just too much going on. Actually, we did hire another guy to help me as well, so there were two programmers on it, but the other guy was mostly doing support work.

SELECTED TIMELINE

GAMES
- **Snake Byte** [Various] 1982
- **Gruds In Space** [Various] 1983
- **Summer Games** [Apple II] 1984
- **Summer Games II** [Apple II, C64] 1985
- **Destroyer** [C64] 1986
- **California Games** [C64] 1987
- **The Games: Summer Edition** [C64. Amiga] 1988
- **The Games: Winter Edition** [C64. Amiga] 1988
- **Chip's Challenge** [Various] 1989
- **Zarlor Mercenary** [Lynx] 1990
- **Gauntlet: The Third Encounter** [Lynx] 1990
- **Road Riot 4WD** [SNES] 1991
- **F-117 Night Storm** [Mega Drive] 1993
- **Michael Jordan: Chaos In The Windy City** [SNES] 1994
- **Chip's Challenge 2** [iOS] 2015

> "Trip Hawkins had an open door policy at 3DO and I always took advantage of that maybe once a month" Chuck Somerville

You said the marketing department came up with a lot of the ideas but how did *Chip's Challenge* come about?
Chip's Challenge is a wonderful story all on its own and it's one that continues all the way up until today. It was the first game I had written since *Snake Byte* that I wanted to play and it was entirely because we'd been developing software for the Atari Lynx, which at the time was called the Handy, and I was struggling to resolve some technical difficulties on the tank game I was working on. The Lynx isn't really a 3D machine. So I came up with the idea for *Chip's Challenge* and they said, 'Do you think you could have it ready in time for the console's release?' I thought I could and the game was written in ten weeks.

Did you have a lot of help?
By the time I had the game engine up and running, I had an army of programmers and artists and testers to help me because all these other projects were finishing up for the Lynx. I put them all to work designing and testing levels for *Chip's Challenge*. It was amazing that we got that thing done in the amount of time we did and many people would say that it was the best game for the Lynx from the original set of titles.

Why do you think that was?
It was the only game that was written from the heart, as opposed to because the marketing department said write this game.

Did you feel the game was going head-to-head with *Tetris* on the Game Boy – a battle of the puzzlers, of sorts?
I never considered it to be a competition. *Tetris* didn't have the deep thought that *Chip's Challenge* did.

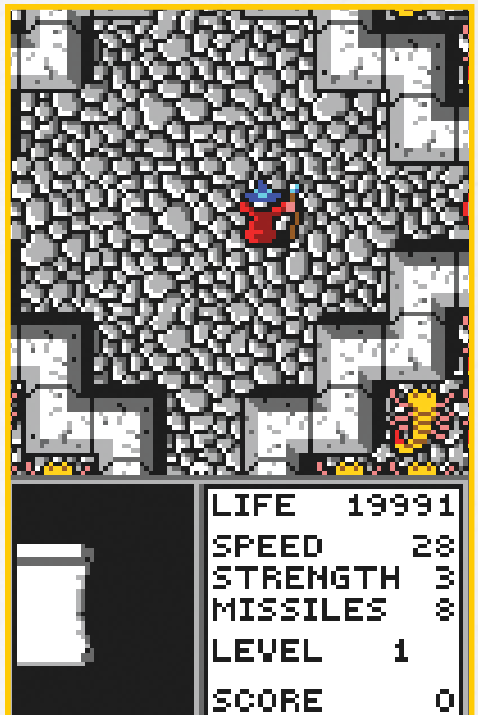
You didn't seem to rest on your laurels and you quickly went to work on *Zarlor Mercenary* on the Lynx. That was a scrolling shooter – very different to your other work.
Yes, it's a bit odd for me to have done a scrolling shooter but I actually chose to do that project. I knew the hardware would support it and it was an interesting project from a technological point of view. I had the help of Stephen Landrum, who had come



» [Lynx] The vertically-scrolling shooter *Zarlor Mercenary* was coded by Chuck and boasted superb graphics by Matthew Crysdale.



» [SNES] Chuck worked with young game designer Amy Hennig on *Michael Jordan: Chaos in the Windy City.* Amy went on to work on the *Uncharted* franchise.



» [Lynx] Players needed to tilt the Atari Lynx on its end in order to play the hack-and-slasher *Gauntlet: The Third Encounter.*

back to work for Epyx and he was one of the original programmers on *Summer Games* and all the *Games* series that I had worked with, and he assisted with loading and unloading different pieces of code while the game was running, because the game was too big to fit in memory at once.

> "I was lucky timing-wise to get in when I did and be involved with the people I got involved with"
> Chuck Somerville

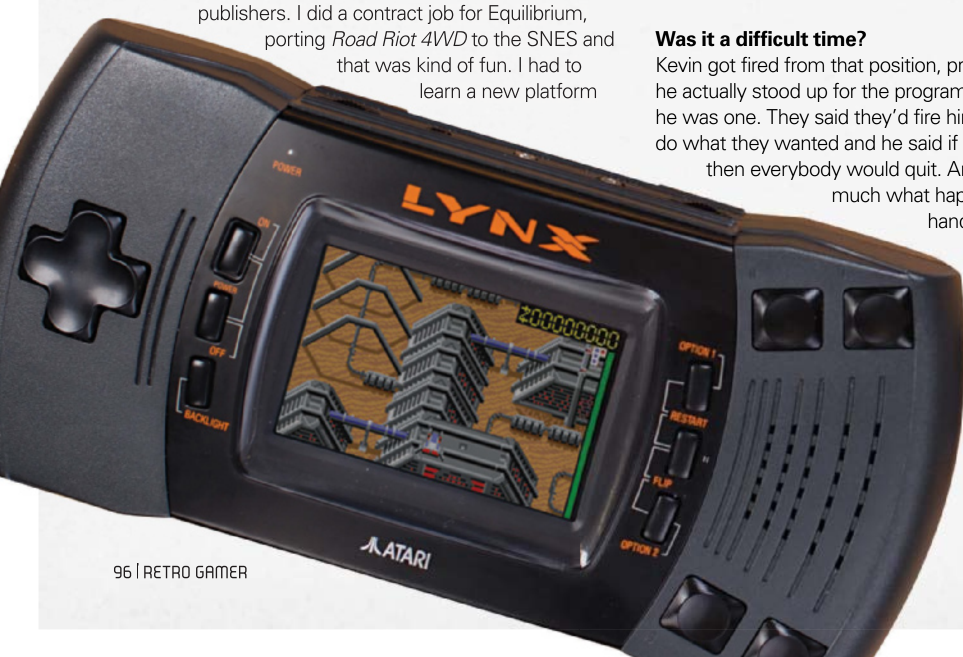
The game had your name on the title screen. Was that important to you?
Yes, you go back to *Snake Byte* and I forced the player to see my name every time they died on that game. Mostly it was an ego thing. It was so I could show it to my mum and dad, and my friends, and say, 'Look, see there's my name right there.'

Epyx filed for chapter 11 bankruptcy. Was that a blow for you?
Well, after Epyx folded, I went on to work with various publishers. I did a contract job for Equilibrium, porting *Road Riot 4WD* to the SNES and that was kind of fun. I had to learn a new platform but that wasn't too bad and it was a job. I did another bit of work with my friend Kevin Furry who I went on to start LED Effects with. He was at a really small company that I can't remember the name of and it was a disaster. We worked on a game licence that was based on Steven Seagal but we really struggled to make the game work.

Was it a difficult time?
Kevin got fired from that position, probably because he actually stood up for the programmers because he was one. They said they'd fire him if he didn't do what they wanted and he said if they did that then everybody would quit. And that's pretty much what happened. He had hand-picked all the engineers, you know, and hired them as his friends because he knew they were talented. I went to work for Electronic Arts and started work on *Michael Jordan: Chaos In The Windy City* when the game was in trouble. It had changed project managers a couple of times but it turned out well in the end. Kind of cheesy, right? With Michael Jordan fighting boss monsters and magical basketballs. After that I was transferred to the coin-op business that never went anywhere and then I moved to the advanced technologies group which is where I really wanted to be.

Were you looking to be on the cutting edge?
Very much so. I worked on porting *Shock Wave* to the PlayStation although my manager and I didn't get along. I felt I'd work hard on that game and I got an unfavourable review so I quit and told him he was going to torpedo my career. I went to 3DO and asked if they would hire me. They did.

What was it like at the 3DO Corporation?
It was great. I went into the orientation meeting and we were sitting around this table with Trip Hawkins [the founder], and he's looking at the resumes, introducing everybody to the company. He's giving all the 'rah rah rah' and looking through the names and identifying the people with the names. And he looks over at me and he says, 'Chuck, I don't have your resume.' And I said, 'You should, there.' He looked through them again and he says, "Oh, it says Charles. I just know you as Chuck." It's like the guy knew me well enough to just say that. Trip had an open door policy over at 3DO and I always took advantage of that maybe once a month, sitting with him and generally talking about stuff.



» [Lynx] *Zarlor Mercenary* is easily the best scrolling shooter that was released on Atari's handheld.

YOU ASK THE QUESTIONS

Time to challenge Chuck with questions of your own

MERMAN: Did you do a lot of planning on paper before you started coding?

I usually just jump in and start solving problems, and see where it takes me.

PARANOID MARVIN: Any temptation to call it *Chuck's Challenge*?

Only a little, but I really liked the double meaning of the character's name, and the objects he was picking up.

MERMAN: What was your favourite game mechanic in your games?

Of course, pretty much anything in *Chip's Challenge*, but from the *Games* series I really like the joystick action on rowing, and cycling.

PARANOID MARVIN: *California Games* – did you decide between yourselves as to who designed which sport? Are/were you an extreme skateboarder yourself?

As we had our team meeting about what events to do, everybody suggested events and they were written down on a white board. Then programmers volunteered for events they thought they could do a good job on. I could skateboard well enough to drop into a bowl, and come out the other side rolling, and I could fakie on a half pipe to the top. I stopped riding in parks around age 50, after getting a concussion – and yes, I was wearing a helmet.

MERMAN: Are there any unfinished projects, and do you still have anything of them?

Nothing from the old days, but I am working on some new stuff off and on.

What did you work on there?
Lots of stuff. One was a new racing car game for the M2 platform that 3DO was going to release. After finishing it, the hardware got canned and the game didn't get released and it was at that point that I left the game industry because it definitely wasn't fun anymore. You couldn't design your own games. Everything was from whatever you were being told and you were basically part of the machine.

But it would seem like the videogame industry hasn't left you and you've been involved in a few projects since.
I was tangentially involved in *Tile World* in 2001. Brian Raiter contacted me when he was putting the game out and I spoke to him about the history behind *Chip's Challenge* and gave him a little bit of help in that project. I was unable to provide him with the source code to the game but, man, what an amazing coder that guy is. He actually reverse engineered the entire thing.


» [SNES] Chuck converted *Road Riot 4WD* to run on the SNES after Epyx folded.

But do you still get your fingertips dirty with coding now?
Well, I had began getting emails from fans saying that they would like a sequel to *Chip's Challenge*. I was able to do that once I was free. When I left the industry, I went to work making LED lighting projects but I wrote *Chip's Challenge 2* over two years and asked the people who owned the name if I could do it. They said I could and said they'd help me get the thing published. But when I showed them the game, they said they wanted $300,000 up front. And I'm like, 'What!?' So I couldn't publish it. It was like 17 years later or so before the thing finally came out and that's because I'd finally gotten a call from somebody who was really serious about bringing the game out and we changed the name to *Chuck's Challenge*. We hired a development team and we also changed the story and the artwork but it's just a block puzzle game with doors and keys and things. We then spent the next five years negotiating with the people who owned the name *Chip's Challenge* and got the right to bring the sequel out within a revenue share model.

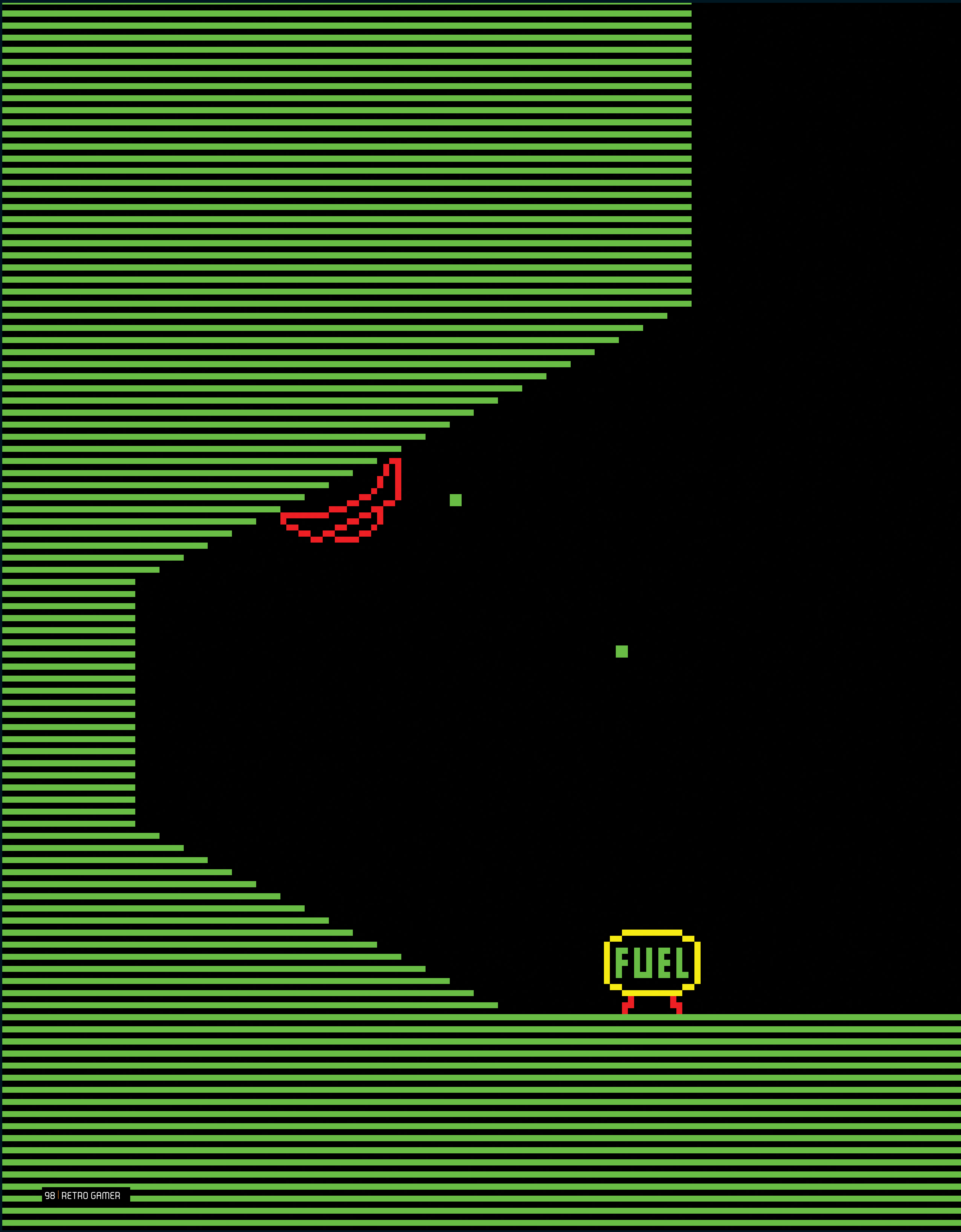
What did you think of the iPhone version? Were you happy with it?
I found the iPhone version to be really frustrating to play. Trying to tap on iPhone screens is just a nightmare. You don't know whether or not you're actually hit the hotspot. The studio did their best, but I think it's an inherent limitation of the platform.

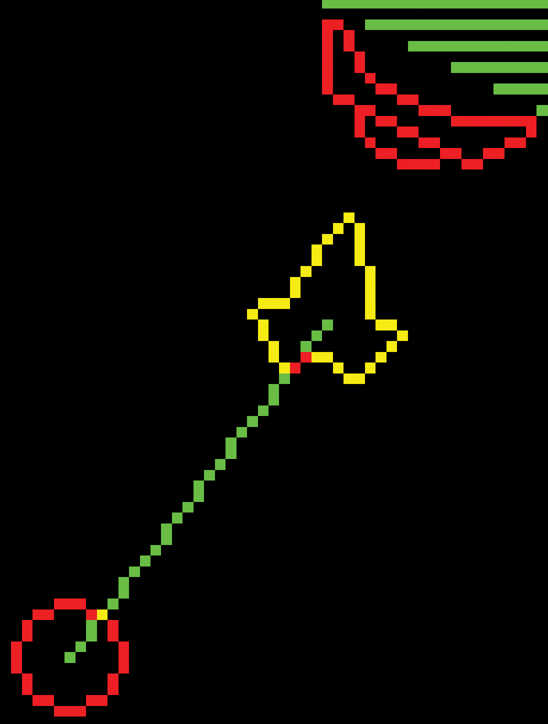
Will you make another game?
I'm looking to retire very soon and I actually spend an enormous amount of time playing *Feed The Beast*, a version of *Minecraft* which is heavily modded that lets you build factories and things with it. I play on public servers with other people, and it's an addiction, I get it. I would much rather sit around and play that than develop games, though. It's really kind of sad, but it's true.

Do the game platforms of today present opportunities that you wish you had at the peak of your gaming career?
I kind of wish that I had been more involved in multiplayer, but I guess *Chip's Challenge* typifies me. I was lucky. I was lucky timing-wise to get in when I did and be involved with the people I got involved with. I was lucky to get to meet and work with some legends in the industry. People knew each other and they would get together and play games. Today I go to GDC and there are thousands of people and if I'm lucky I will recognise two people; old veterans that don't know enough to quit. ✱



» [PC] It may have taken 25 years and languishing on Chuck's hard drive waiting for legalities to be ironed out but *Chip's Challenge 2* got a release in 2015.


FUEL



» RETROREVIVAL

Thrust

"YAH CANNAE CHANGE THE LAWS OF PHYSICS"



» BBC MICRO » SUPERIOR SOFTWARE » 1986

I have a love-hate relationship with *Thrust*. It started back in the mid-Eighties when I would visit Andrew Joiner's house and play on his BBC Micro with him and a couple of other friends. Normally, we'd all take it in turns to play *Elite*, but every now and then he'd get bored and would want to put something else on. Typically that something else would often turn out to be *Thrust*.

While *Thrust* isn't the most original of games (it's essentially a home computer version of Atari's coin-op, *Gravitar*) it nonetheless stands apart. This is mainly thanks to its distinctive visuals, particularly on the BBC Micro, which manage to look far more stylish than those of *Gravitar* and its truly tremendous level design. The overall aim of *Thrust* is pretty simple – all you have to do is pick up a pod and fly it into deep space. Sadly, the clever use of gravity and physics mean this is easier said than done, particularly if you're a heavy-fisted hulk like myself.

As a result I constantly find myself frustrated when playing *Thrust*, and yet it's a game I find myself constantly returning too. Every time I mess up, I know it's because I didn't calculate the angle of my ship or the speed of its descent. I know it's my fault and I tell myself that I'll do better, but somehow I never do.

Thrust angers me, but also thrills me when I'm finally able to clear that tricky stage. It tests your resolve as well as your patience and co-ordination skills and it's somewhat telling that, while I've never been able to get past its tenth stage, I still find myself continually returning to it, convinced that this time is the time I complete it. *

RETRORATED



» Lots of cool games this issue. Capcom's Street Fighter V finally gets a release, we take a look at Deathsmiles on PC and play through Gunscape, a slick FPS that allows you to build classic levels based on the shooters of yesteryear

Street Fighter V

IT PACKS A POWERFUL PUNCH BUT VERY LITTLE ELSE

INFORMATION

- » **FEATURED SYSTEM:** PS4
- » **ALSO AVAILABLE ON:** PC
- » **RELEASED:** OUT NOW
- » **PRICE:** £49.99
- » **PUBLISHER:** CAPCOM
- » **DEVELOPER:** CAPCOM
- » **PLAYERS:** 1-2



Even in this early part of its life, it's obvious that *Street Fighter V* is going to be a huge improvement over its impressive predecessor. The balance of the characters is excellent, with no single player dominating the playing field (ignoring all the Ken and Ryu scrubs online) it features an excellent new survival mode that offers hours and hours of replay value, while its training options are deep enough for the hardcore fans, but won't intimidate those who haven't played a *Street Fighter* game since the incredibly popular second instalment.

While only four new characters appear in the game, each and every one is a significant addition. Laura is a big fan of using grappling techniques and breaking throws, Necalli is a strong, aggressive character whose fighting style is as wild as his hair, Rashid is extremely acrobatic and has the ability to control wind, while F.A.N.G utilises poison in his charge attacks and is best used by experienced players.

Although all four newcomers make an impact, the same can be said for the remaining 12 characters. While *Street Fighter II* stalwarts like Ryu, Ken, Chun-Li, Zangief, Cammy, Vega, M-Bison and Dhalsim all make appearances, *Street Fighter V* also taps into the *Alpha* series, adding Birdie Nash, Karin and R-Mika. What's more, characters like Ken and Dhalsim have been greatly changed from previous iterations, meaning they require getting to grips with all over again. The introduction of the new V-Skill mechanic is also critical here as it gives each character a distinct move (activated by pressing medium punch and kick together) that range from parries to standalone attacks or cutting a wrestling promo. It's a great addition to the series and making each character stand apart from one another.

Other new features include the V-Guage (a separate meter that typically has two or three bars and can be used for V-Reversals or V-Triggers) and Critical



» [PS4] Fun fact, Laura is actually the elder sister of Sean who originally appeared in *Street Fighter III*.

BRIEF HISTORY

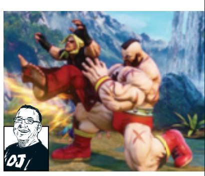
» The original *Street Fighter* appeared in 1987 but wasn't a huge success. That all changed in 1991 with the arrival of *Street Fighter II*, which found massive popularity in both the arcades and the home. The announcement that *Street Fighter V* would be a PlayStation 4 exclusive upset many Xbox One owners.





» [PS4] The new Critical Arts are just as over-the-top as anything that featured in *Street Fighter IV*.

PICKS OF THE MONTH



DARRAN
Street Fighter V
Yes it's not finished, and yes it has online issues, but when it works it's incredible fun.



NICK
Street Figher V
It probably helps that I've been playing offline multiplayer, but this is the step up from *Street Fighter IV* I was hoping for.





» [PS4] It's nice to see *Alpha* characters returning to the mix. We've always been fond of Karin and Birdie.

» [PS4] Dhalsim may have had a physical makeover but he's still as flexible as ever.



» [PS4] As good as *Street Fighter V* is, it clearly wasn't finished in time for its release.



Arts (strong attacks that can damage blocking opponents and replace the Ultra moves found in *SFIV*). Otherwise it leans heavily on older games with Ex Specials and Guard Breaks all putting in appearances. Attack animations are slightly slower too, while it's a lot more forgiving when calculating inputs and links. It's still an insanely deep game for those that attempt to master it, but it's an accessible one and great fun to play.

Unfortunately, while Capcom has clearly created an incredibly nuanced fighting engine, it's let down by the fact that there's very little standalone content. Yes there is a lot planned, and yes Capcom has been transparent with what will be available at launch, but we still can't help but think that rushing it out for Evo was a big mistake. The current story mode is pathetic consisting of single round bouts against two or four characters. It features a dire plot for each character and weak art and takes little to no time to breeze through. The Training mode is solid but isn't going to appeal to those that don't like to practice, practice, practice, which just currently leaves the new Survival mode.

Thankfully it's superb consisting of 10, 30, 50 and 100 one-round battles and just a single health bar. It differs from virtually every other Survival mode we've played in that it gives you a list of different options that you can spend points on between fights. They range from upping your power or defence to partially or fully replenishing your energy bar. Alternatively you can make opponents harder to defeat, giving you more points in the process should you beat them. It's a great idea that ensures the base fighting never gets boring, particularly as the continual bonuses affect your overall score.

The online implementation is also interesting in *Street Fighter V*. You can be challenged at any time, choose whether you want to fight against PC and PS4 owners, set the quality of the connection, tweak online lobbies and much more. Another nice touch is the ability to select the character you wish to use online. They're instantly selected when matchmaking to ensure an opposing player can't switch to someone else to get a tactical advantage at the last minute.

It's clear that Capcom has put a lot of thought into the online side of *Street Fighter V*, so it's somewhat disappointing that playing online is currently so inconsistent. When it's great, it's amazing, offering a solid evening's play that reminds you of being in the arcades of old, when it's not working though it's terrible, offering annoying laggy matches and lengthy waits between matches (our longest wait being 30 minutes). Of course, this wouldn't be a problem if there were plenty of single-player content, but it's currently largely missing with the much-touted new story mode and challenges not appearing until later this year.

There's no denying that *SFV* is an incredible fighting game, but at the moment it's too lacking to be worth its £50 asking price. ✱

In a nutshell

A brilliant fighting game that's currently let down by a lacklustre amount of content and some irritating online issues. Our advice? Wait until Capcom has implemented everything that should have been there from day one.

RetroGamer_Mag scored 7 for
Street Fighter V
Follow our scores on JUST A SCORE

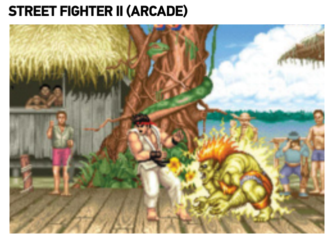
SHOP TILL YOU DROP

Understanding Street Fighter's currency

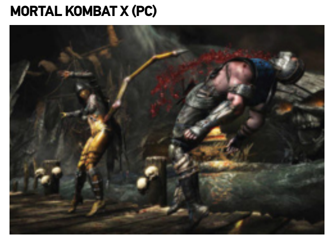
***Street Fighter*'s online shop currently isn't open, once again indicating the rushed nature of the game. Once it does appear, you'll be able to buy characters and costumers with two types of currency. Fight Money is earned whenever you finish Story modes, Survival modes or play people online. It's the free, grindy way of unlocking all the content that will eventually be made available by Capcom over the coming years. Alternatively, if you want to buy characters outright with money you can by purchasing Zenny (the currency from many Capcom arcade games). Obviously it's going to take a long time to get everything for free (the ratio is roughly 14-1) but it's good of Capcom to give everyone the option either way.**

✱WHY NOT TRY

▼ SOMETHING OLD
STREET FIGHTER II (ARCADE)



▼ SOMETHING NEW
MORTAL KOMBAT X (PC)





[PS4] The animation of *Street Fighter V* is stunning, although we expected more environments to be destructable.

RETROROUND-UP

>> Every month we look at all the classics and latest releases that are available to buy or download

Deathsmiles

» **System:** PC » **Cost:** £14.99 » **Buy it from:** steampowered.com

While we were impressed with Cave's recent PC port of *Mushihimesama*, having to pay additional money for old DLC didn't sit too well with us. Thankfully, the Steam release of *Deathsmiles* rectifies this, adding the additional *Mega Black Label* content that was also included in the Western Xbox 360 release of the game.

For those that have never played it, *Deathsmiles* is a superb bullet hell shoot-'em-up and quite possibly one of the most accessible shooters that Cave has made. The story is complete bobbins and it revolves around a bunch of teenage girls trying to save the world from evil forces, but the gameplay throughout is excellent.

As with many Cave games, the scoring system is important. Thankfully, it's relatively straightforward to get your head around. Shooting certain enemies release 'counter bullets'. If they are hit by a player's familiar it increases the 'item counter' and subsequently the player's score. It's a solid system that can lead to same insanely high scores once it's fully mastered, but it's not the only reason *Deathsmiles* is so much fun to play.

The game's stages are split into chapters and they can be tackled in any order you choose. Additionally, each stage has a difficulty level between one and three (climbing to 999 in *Mega Black Label*) ensuring plenty of challenge whenever you play. The bosses are exceedingly odd and extremely challenging to battle, whilst the Gothic design makes it stand apart from many similar shooters.

In terms of content *Deathsmiles* is very good, being obviously based on the excellent Xbox 360 version. It does lose the Xbox-exclusive mode, however, which is a shame, but inevitable. It's a pity Cave couldn't have added a PC-exclusive gameplay mode, but with the various updates and original arcade ports there more than enough for players to sink their teeth into.

Deathsmiles is a great horizontal shooter at a great price. Download it today and discover one of Cave's most enjoyable shooters.

9 — RetroGamer_Mag scored **9** for Deathsmiles
Follow our scores on JUST A SCORE



» [PC] The bosses have a fantastical style and love to spew out large numbers of bullets.

"In terms of content Deathsmiles is very good"



» [PC] *Mega Black Label* added Sakura who you fight in the original version of the game.



» [PC] It wouldn't be a Cave shooter if there weren't intricate bullet patterns to navigate.

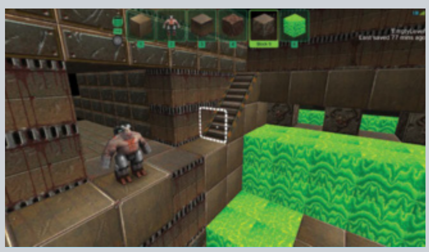


Mortal Kombat XL

» **System:** PS4 (tested) PC, Xbox One
» **Buy it for:** £34.99 » **Buy it from:** Online, retail

Street Fighter V's current lack of content is highlighted by this enhanced update of *Mortal Kombat X*, which adds nine additional characters and a host of extra costumes that weren't in the base version of the original game. Whilst it's not as technically proficient as *Street Fighter V* it remains a great brawler thanks to a varied cast of characters, the ability to interact with all sorts of background objects and those over-the-top X-Ray and Fatality moves. It's far more substantial than Capcom's game too thanks to a wealth of gameplay modes, including a highly entertaining story campaign and the enjoyable Living Towers. A highly entertaining fighter that offers endless amounts of replay value.

8 — RetroGamer_Mag scored **8** for Mortal Kombat XL
Follow our scores on JUST A SCORE



Gunscape

» **System:** Xbox One (tested) PS4, PC
» **Buy it for:** £14.99 » **Buy it from:** Online, retail

If you've ever loved blasting through *Doom* or playing *GoldenEye*'s multiplayer, you're going to get a lot of enjoyment out of *Gunscape* as it allows you to recreate a large number of classic stages from old first-person shooters. While it has the versatility of *Minecraft*, it's quite a lot harder to get to grips with, mainly due to the sheer number of options that are available, which can be very intimidating. The interface used for navigating and sharing user-created levels is also fiddly, making *Gunscape* feel quite unpolished as a result. It all comes together in multiplayer, which is great fun, but we can't help but feel that a little bit of additional tweaking would have made this an essential purchase.

6 — RetroGamer_Mag scored **6** for Gunscape
Follow our scores on JUST A SCORE



Final Fantasy Explorers

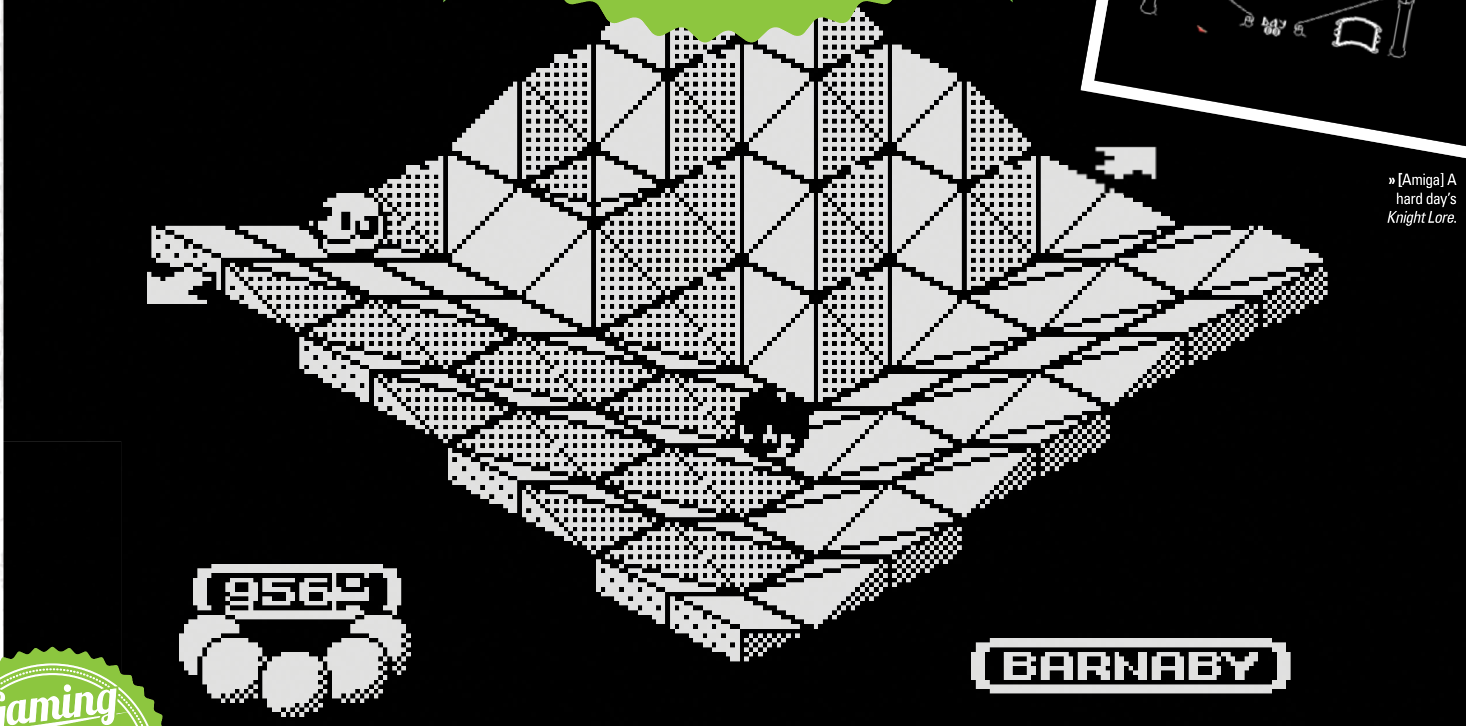
» **System:** 3DS » **Buy it for:** £29.99
» **Buy it from:** Nintendo eShop, retail

Square Enix's latest spin-off of its famous RPG series is an attempt to create a competitor to *Monster Hunter*, a series which practically prints money in Japan. To that end, you'll be equipping yourself for real-time battles and taking on quests, but you'll be hunting down classic *Final Fantasy* foes, as well as enormous Eidolons such as Ifrit and Bahamut. *Final Fantasy Explorers* is a perfectly competent game with plenty of quests, abilities and equipment to try out, and it's very pretty to look at. However, it's also rather slow going and doesn't offer much that distinguishes it from its more established inspiration, beyond the expected helping of fan service for the faithful.

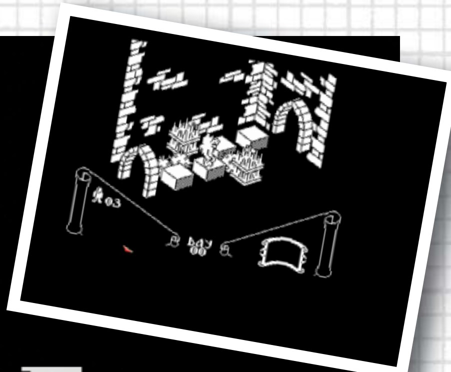
6 — RetroGamer_Mag scored **6** for Final Fantasy Explorers
Follow our scores on JUST A SCORE

Gamers HOMEBREW

Brewing since 2005



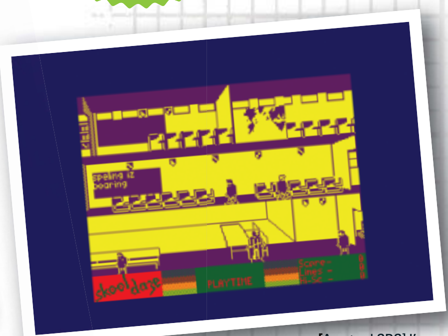
» [Atari 8-bit] None of the guys go steady cause it wouldn't be right.



» [Amiga] A hard day's *Knight Lore*.

Gaming NEWS

PENGUINS, BEARINGS AND ISOMETRIC 3D



» [Amstrad CPC] I'm going to walk the streets, scream and shout.

Penguin Adventure for the MSX is a fast-paced third-person action game where Penta the penguin must race through hazardous environments at speed while grabbing fish which act as currency in the in-game stores. It was, amongst other things, notable as the first title that famed game designer Hideo Kojima worked on at Konami. Now it's possible to play this piece of 8-bit gaming history on the ColecoVision too, courtesy of developers Opcode Games and their Super Game Module expansion for the ColecoVision with further information about both products to be found at their website, OpcodeGames.com

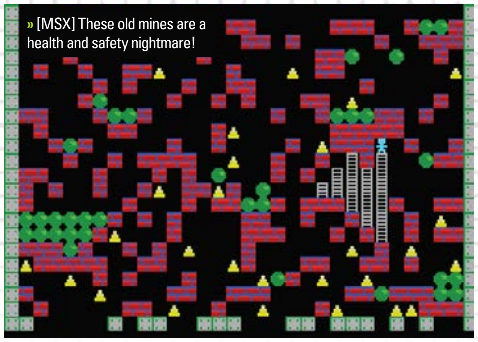
We've been following the Retro Ports blog – Retroports.blogspot.co.uk – for a while, but there's been a flurry of activity recently including conversions of Ultimate's Filmation titles *Knight Lore*, *Alien 8* and *Pentagram* from the Spectrum to the Tandy TRS-80. On top of that there's an Amiga conversion of *Knight Lore* too, along with conversions in various states of completion for the Mega Drive, PC and Neo-Geo. The blog's owner is tcdev, who has documented some of the work involved in his releases and uploaded some of the commented disassemblies produced along the way for the more technical readers, which will hopefully come in handy for others looking to convert these titles to their platform of choice.

Staying with isometric adventures, we mentioned Mariuszw's ongoing port of *Bobby Bearing* to the Atari 8-bit previously and are pleased to say that it's finished. Get it from Kikstart.eu/bearing-a8. For those unfamiliar with the game, Bobby is one of a large family of Bearings living in the futuristic world of Technofear where everything is made of metal. When he and his siblings are lead astray by a 'rogue cousin' it falls to Bobby to round the others up and return them to safety, avoiding evil Bearings and the landscape's pitfalls.

Finally, an Amstrad CPC version of the Spectrum educate-'em-up *Skool Daze* got out of detention right at the end of 2015, along with Eric, the less than model pupil who knows that his parents are going to completely lose it if they see how badly he's behaved. A damning report card is locked in a safe so Eric needs to retrieve the combination and pinch it while still attending lessons, grab it from Kikstart.eu/skool-cpc.

NEW GAMES NEEDED

If you have a homebrew project you would like to see featured then please contact us at: **retrogamer@imagine-publishing.co.uk**



» [MSX] These old mines are a health and safety nightmare!

BEWARE, FALLING ROCKS

MSXdev entry *Bubbo World* is a single-screen action game starring a small man on a quest for gold who is constantly being harassed by rocks; yes it does sound a little like *Boulder Dash*, but this search for wealth is actually platform-based. The little chap can create ladders to move through the stage and those large lumps of stone regularly tumble in from the top of the play area and don't stop moving on a flat surface either. Kikstart.eu/bubbo-msx goes to the author's website for disk and cartridge images.

> "Bubbo World is a single-screen action game starring a small man on a quest for gold"

» [C64] Making a dash between the boulders.



REMIXING THE PAST

There were more boulders in *Rock Maze* by Graham Axten when it was originally written some 20 years ago, and the game has recently been on the receiving end of a major visual overhaul to make it ready for a new release alongside the latest issue of the C64-flavoured *Reset* magazine. This game is based on the classic *Boulder Dash* with the player's rotund and rather blue avatar needing to dig around within a scrolling maze for diamonds while planning ahead to avoid being crushed or trapped in the process. Head to Kikstart.eu/rock-maze-c64 and take a look.

·HOMEBREW HEROES·

We do enjoy a good backstory and Andrea, the developer of Jump Ninja for the C64, wrote the game for his son, so we decided to grab him for a quick chat

THE BIG INTERVIEW
·ANDREA·



Where did the idea for *Jump Ninja* come from?

The idea was born by just watching the cartoon *Sasuke The Little Ninja*, an old anime shown on TBS, while the graphics were inspired by a tutorial found on the internet. To be honest, I also used an image of an old game for iOS.

And roughly how long did it take to write?

I developed the code for *Jump Ninja* in a very short time: four weeks. The game concept is very simple, as is the code, while the graphics and music were created by Saul Cross of RGCD. I've done several jobs with him and he's always available and willing to help, so I hope this can continue. I'm very happy to know him.

Where there any standout moments during development?

Yes, my son has followed the whole development and I had to rewrite a lot of the code and remake the entirety of the second level several times because the ninja does not jump very high…

What kind of feedback have you had so far from players?

Positive feedback. The beauty of this game is its simplicity, its a casual game with very simple mechanics with controls that I think are very responsive. Someone asked me to allow the ninja to double jump, or at least jump from the walls so it has a chance to go back to the platform – like you see in the *Mario* games – I did some tests but it didn't work so no double jump or wall jump. Some people have defined it as frustrating, but it isn't *Flappy Bird*!

You wrote the game for your son Francesco, does he enjoy playing it?

Francesco is very happy with it and he has managed to complete it without cheats.

Looking back now, is there anything you would have done differently?

For me everything is fine and I would not change anything, but I wanted to include many more things like more parallax using the trick in *Flimbo's Quest*, add more levels and at the end of each have a fight with a bad guy. I would have liked to add new graphics for the background as well but there was no time and I had to do something, so I have finished the game by mixing the existing tiles. I could add more levels and new graphics, though.

» [C64] And everybody knew their part.



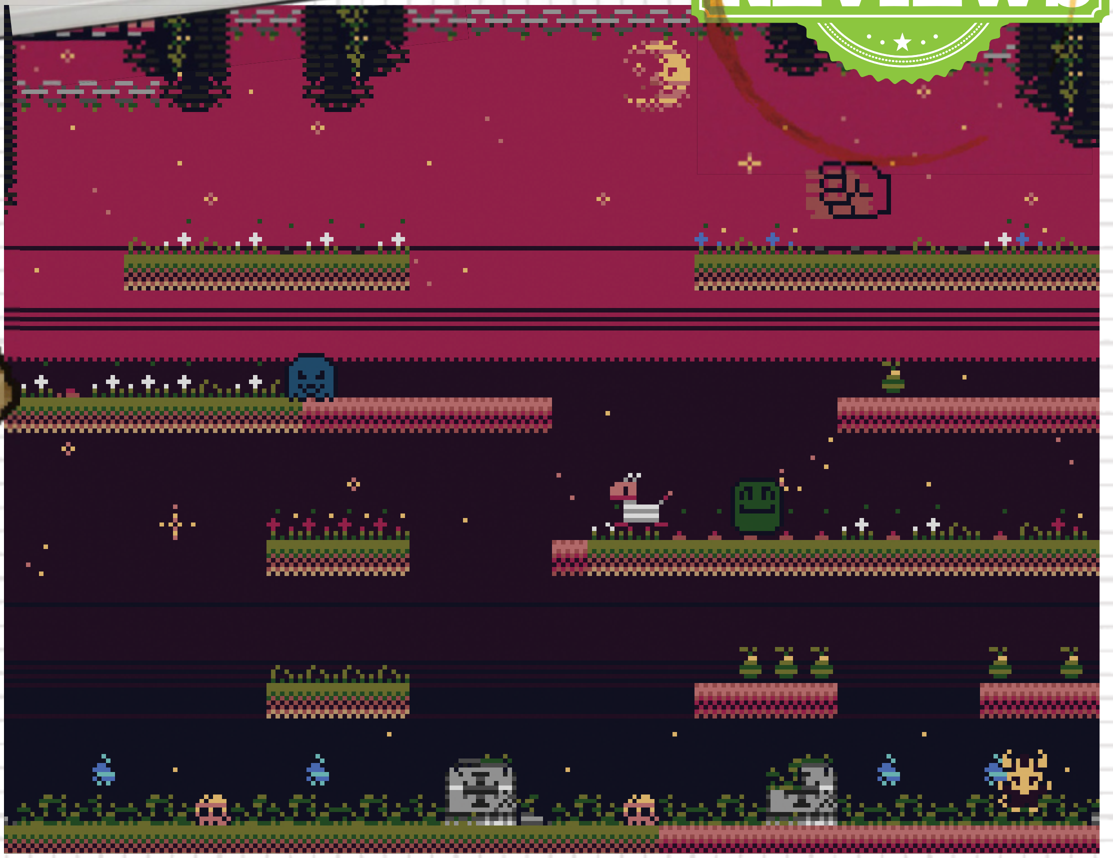
Finally, can you tell us what you're currently working on?

I'm still working on *Rocky Memphis* which is quite vast, and I have almost completed a conversion from Amiga to C64 and Atari800/XL of *Platman*, a 2D platform game which is very funny and coming soon. I still have a pending game to be completed, *Bruce Lee II* with improved graphics by Saul Cross. And there are a lot of things that I need to learn in order to make the jump to 16/32bit… perhaps.



» A very wide view of *Jump Ninja* being built.

Gaming
REVIEWS



» [MSX] The Lord Of The Forest, running away from the local fauna.

SPRING WARRIOR

» **FORMAT:** MSX2 » **DEVELOPER:** ONIRIC FACTOR » **DOWNLOAD:** KIKSTART.EU/SPRING-WARRIOR-MSX » **PRICE:** FREE

When they've been plied with a little alcohol and encouraged to reminisce, the village elders talk about the Lord Of The Forest and how he appears as the winter months draw to a close, bringing with him those first signs of spring even to the most remote and hostile parts of the land. That job will be particularly difficult this year, however, because the spirits of winter are out in force and apparently have no plans to relinquish their icy grip on the world.

The gameplay is similar to the coin-op *City Connection* with his lordship dashing merrily around the screen and quite literally transforming the ground as he walks across it from winter to spring. Covering the majority of the landscape is enough to complete the current level, but there are those pesky spirits to work around whose touch is fatal and, because there are enemy types that actively home in on the player right from the first stage, avoiding the more persistent ones will take some skilful joystick use. There are several dark and dingy places which are desperately in need of a green and pleasant makeover and each of these areas contains multiple screens so Lord Forest will have to be particularly nimble this year if he's to survive.

Apart from introducing the tougher-to-handle nasties and rewarding the player for doing well with new graphical styles, there isn't a lot of variety to the gameplay and we did notice a few unusual quirks to the presentation – on the version we've played the game will restart from the first area immediately after the Game Over message has been displayed for example, rather than returning to the titles page – but at the same time these aren't serious problems because, while it might sometimes frustrate, the action is both frenetic and challenging so *Spring Warrior* is very entertaining to play.

RetroGamer_Mag scored **8** for
Spring Warrior
8
Follow our scores on JUST A SCORE



» [MSX] Yes, they'll all come to meet me, smiling sweetly.

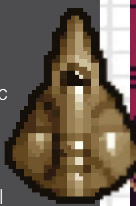


» [MSX] Making everything into a greener and more pleasant land.



·DO YOU· REMEMBER?

The MicroSol corporation want to take over the galaxy and the player, as valiant space hero Trent Hawkings, is on a well-armed mission to stop this from happening – at least that's the uninspired but functional story behind Epic Megagames' shareware blaster, *Tyrian*. Trent's battle is a vertically scrolling one and in the Full Game mode he'll need to arm his fighter with weaponry from the shop before wading into battle with MicroSol's forces over some nicely drawn and varied backgrounds.



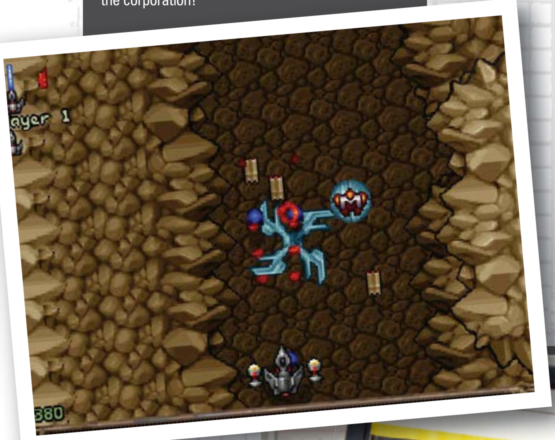
The original was declared to be freeware by programmer Jason Emery in 2004 and shouldn't be hard to find, but the recreated *OpenTyrian* at Kikstart.eu/opentyrian is based on his original code, far easier to get going and runs on Windows, Linux, OSX and a surprising range of other platforms.



» [PC] Tanks aren't as tough as they look, and they're tiny too!



» [PC] Power up the lasers and stick it to the corporation!



Don't forget to follow us online for all the latest retro updates

RetroGamerUK @RetroGamer_Mag retrogamer@imagine-publishing.co.uk

SOLARGUN

» **FORMAT:** SINCLAIR SPECTRUM » **PRICE:** FREE
» **DEVELOPER:** JARI KOMPPA
» **DOWNLOAD:** KIKSTART.EU/SOLARGUN-SPEC

Space is an incredibly cluttered place and it's fallen to you and your powerful SolarGun-armed spaceship, to tidy things up a little by blasting some of the asteroids that litter the space lanes. The gun itself isn't perfect and will require a little charging time between shots, so the instinct to spray electric death must be suppressed in favour of a more cautious and precise approach, only firing when the ship isn't in any immediate danger.

The unusual way that the display is refreshed means there's a nice motion blur-style effect on everything and the inertial controls for the ship put up something of a fight when trying to weave between hazards so, while it's a simple game that the programmer seems to have written in part to test his development tools, the result is no-nonsense action to get the adrenaline going so why not give it a blast?

RetroGamer_Mag scored **7** for Solargun
7
Follow our scores on JUST A SCORE

» [ZX Spectrum] In space nobody can hear you swear at the 'sneaky' asteroids.



» [ZX Spectrum] Apparently space debris is a seriously underestimated problem!



ASTEROIDX

» **FORMAT:** WINDOWS, OSX AND LINUX » **DEVELOPER:** DAVIT MASIA
» **DOWNLOAD:** KIKSTART.EU/ASTEROIDX-WIN » **PRICE:** VARIES

AsteroidX is, as the name probably suggests, a reworking of the classic *Asteroids* formula of yore; dump a spaceship in the middle of a rock-strewn area of space and leave it to fend for itself by smashing the rocks into dust and taking down other adversaries as they're introduced.

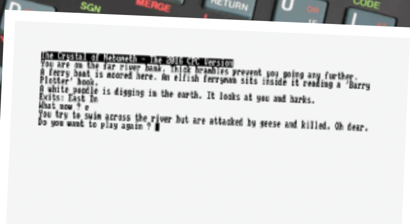
In this particular case the ship has automated firing and is mouse-controlled, or, more accurately, it moves towards the pointer with the left mouse button applying some thrust so bullets can be aimed at specific targets and power-ups can be collected. Said extras are handy things such as extra lives and a temporary shield power-ups which rotates around the player and mashes incoming threats.

We've been playing the Windows version, but there are also builds for both Mac OSX and Linux around and gamers can choose their own price or even download the game for free if they want to try before they buy.

RetroGamer_Mag scored **8** for Asteroidx
8
Follow our scores on JUST A SCORE

» [Windows] There seems to be a lot of rocks around at the moment.





» [Amstrad CPC] Going swimming is hazardous to your health.

ROUNDUP

Fans of text adventures might want to take a look at *The Crystal Of Nebumeth*, a new conversion to the Amstrad CPC where layabout elf Grumble Mullet is dragged into a mystical adventure because the previous resident of his house, one Pogo Blaggins, forgot to leave a forwarding address. You can grab it from Kikstart.eu/crystal-nebu-cpc.

And whilst new Commodore 128 releases are rare, Jason Wright has been coding a version of *Boulder Dash* which uses the underused 80-column mode. At the time of writing he's waiting on some in-game sound before it's finished. Play it at Kikstart.eu/boulder-prv-c128.

And one game we missed late last year was Atari 8-bit developer MatoSimi's new puzzler *Quarrion*, which plays like a cross between the traditional match three format and popular web-based puzzler *2048*. It can be downloaded from Kikstart.eu/quarrion-a8.

PRIEST JOHN MCPUKE

» **FORMAT:** ATARI 8-BIT » **DEVELOPER:** MGR INZ RAFAL » **DOWNLOAD:** KIKSTART.EU/PRIEST-JOHN-A8 » **PRICE:** FREE

Gamers of a more sensitive disposition really aren't going to like *Priest John McPuke* much; the titular character and game both swear like sailors on a regular basis and neither has even the slightest intention of treating the subject matter of a priest on a mission with any kind of sympathy – it isn't often we play a game where the inventory screen has rosary beads, a cocktail glass and some snot– but there is also a sprawling, multi-loading adventure hidden behind the scatological humour too.

There is an emphasis is on exploration, searching diligently through over an impressive 180 locations for helpful items to collect which are in turn used to complete tasks although it's sometimes hard to know what's required. This is worth trying if you like challenging puzzles and aren't upset by the idea of a man of the cloth wading through sewers or urinating in places he definitely shouldn't.

RetroGamer_Mag scored **7** for Priest John McPuke
7
Follow our scores on JUST A SCORE



» [Atari 8-bit] And always remember to flush when you've finished going.



» [Atari 8-bit] Mooching around having found some snot on one of the pews!

MAILBAG

HAVE YOUR SAY… SEND US A LETTER OR MAKE YOURSELF HEARD ON THE ONLINE FORUM – **WWW.RETROGAMER.NET**

WIN!

Every month, one lucky writer-in will receive a copy of our latest eMag, **Retro Gamer Load 3**, a bargain if ever there was one



COUNT OUT COIN-OPS?

Dear **Retro Gamer**,
Does anybody still frequent the arcades? Nowadays I find the cost just too astronomical – at least £1 a go – when, instead, I can play at home on my PC or PS3 for free.

I can remember the days when I could spend a ten pence piece on a game and be on the machine for an hour or more at no extra cost with those I was good at!

D O'Conner

If you think £1 is too much, you should see the likes of *Star Wars Battle Pod* – £2 per credit! There's enough appetite for arcade games to sustain a competitive market, as the likes of Sega, Namco and Raw Thrills are still manufacturing new games. Occasionally big new games still hit the arcade first too – *Time Crisis 5* and *Tekken 7* are recent examples.

However, dedicated arcades are hard to find in the UK these days, with most games finding homes in bowling alleys and other such locations. Additionally, most of the games are driving, shooting or music games which benefit from large custom controllers rather than a standard joystick and buttons. It's a sad decline from the glory days, but it seems most people would rather pay for credits in mobile games than arcade cabinets now.





» [SNES] *Super Mario World* was #2 in 2004 and #1 in 2015. Where will it be a decade from now?

LIST WATCH

Dear **RG** team,
I'm not usually a fan of list articles so I wanted to write to say what a great job you did with the 150 Greatest Games Ever article in (half of) issue 150. It was a great touch to include where each entry had placed back in issue 8. There were so many surprising new entries that I would have expected to make it first time around – I think the changes reflect the broader readership as **Retro Gamer** has grown over the years. I wonder what the list will look like in another ten years for issue 300?

Congrats for ten years at the helm.

Bob Bailey

We're glad to hear that you enjoyed it, Bob – we felt that we couldn't let the 150th issue pass without some form of celebration, and as a one-off the huge list felt like the right thing to do. We've also been trying to make our list features a bit more interesting in recent months, with more interviews, statistics, playing tips and more visually interesting entries. Hopefully that has paid off!

Concerning the differences between the 2004 and 2015 lists, it's probably fair to say that changing readership is partially responsible. Many of our votes came from overseas this time around, so internationally popular machines and games got a boost. Additionally, age plays a part – there are adults with jobs, mortgages and their own sense of nostalgia who weren't even alive when *Elite* was released, after all.

As for another list in issue 300, we can't even begin to imagine what will be on it …

STAR LETTER

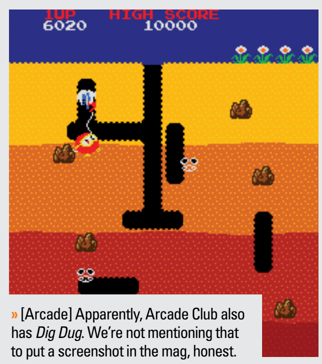
JOIN THE CLUB

Dear **Retro Gamer**,
Retro Gamers have been given a gift. What is this gift? Bury Arcade Club! Opened in a mill in Bury it has up to 200 coin-ops and pinball machines, £10 entry then all games set to free play. Not since Mr B's in Blackpool in 1986 have I had all my fave games in one place. The minute you walk through the door you're greeted by *Wonder Boy*, then they carry on – *Hyper Sports*, *Nemesis*, *Salamander*, *Pac-Land*, *R-Type*, *Star Wars*, *Robotron*, *Bubble Bobble* and, yes Darran, there is a *Mr. Do!*. Places like this are few and far between now, so get on down there – this place is retro heaven.

Andy Thomas

You're not the first person to suggest this to us, but it's a common sentiment. Nick recently attended a wedding where a guest urged him to go, so we're even encountering this in daily life. Of course, being down on the south coast it's not possible to get further from Bury, so we haven't managed to make it up there yet.

Despite the fact that we haven't been, we recognise that it's important to attend places like Arcade Club if you're able to, because you're right to say that they're few and far between. Even in the last five years we've lost locations like Casino in London, which used to host classic games such as *R-Type Leo, King Of Fighters '98* and *Pang*. Outside of the odd *Daytona USA* and *Sega Rally* cabinet, most of the machines we see these days are one-offs in bars, usually put there for novelty value. From what we've heard, Arcade Club does right by the classics – long may it live.



» [Arcade] Apparently, Arcade Club also has *Dig Dug*. We're not mentioning that to put a screenshot in the mag, honest.



» [Arcade] There aren't many arcades left running classics like *Hyper Sports* today.

Don't forget to follow us online for all the latest retro updates

RetroGamerUK | @RetroGamer_Mag | Retro Gamer Magazine | @RetroGamerMag



CONTACT US

Snail Mail: Retro Gamer, Imagine Publishing, Richmond House, 33 Richmond Hill, Bournemouth, Dorset, BH2 6EZ

Email: retrogamer@imagine-publishing.co.uk

KARMA KARMA KARMA…

Hi **RG,**

I hope the Coleco Chameleon is successful enough to rewire the past and present generation of gamers back to a time when there were no loading times, and gameplay, as well as graphics, were more about substance over style. There have been lots of dodgy consoles from Blaze Gear and the Chinese market that have failed to give us what we want, and hopefully this new console with new 8-bit and 16-bit games will satisfy our cravings if it gets a release.

Cisko Kidd



DISCUSSED THIS MONTH

Splashing The Cash

This month resembled a game of 'Going For Broke' between Darran and Nick, as Darran stocked up on Super Famicom games and Nick went big on a Supergun and a Neo Geo MVS board.



» We still don't know if the Coleco Chameleon will reach production. It's currently surrounded by controversy.

Since we've received this letter lots has happened at the Coleco Chameleon camp. Its creators have come under fire for not having a working prototype (a SNES Jr was reportedly used at its recent toy fair debut, while a PC capture card was seen in a later build) and its Kickstarter was shelved. Coleco itself has now distanced itself from the beleaguered project, making the Chameleon less and less likely. More news next month.

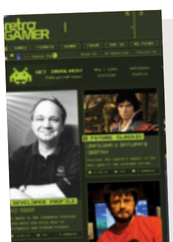
WORST OF THE WORST

Hi guys,

It's struck me that even on failed machines, there are usually one or two good games worth playing – even the Jaguar's detractors know that *Tempest 2000* is worth playing, for example. Are there any systems out there that are bereft of worthwhile games? I'm looking for the most irredeemable crap possible.

Barry Waldern

Of the ones we've played, the Action Max is probably the one we'd pick as most likely to fit your criteria. Because of its VHS-based games, it was barely interactive at all. Plus it was exclusively lightgun-based, so if you didn't like shooting stuff you were really out of luck.



From the forum

» www.retrogamer.net/forum

Every month, Retro Gamer asks a question on the forum and prints the best replies. This month we wanted to know…

The Best Of Rare On The N64



» The Action Max barely qualifies as a videogame console, really – it's very limited indeed.

nakamura
My favourite is *GoldenEye*, easily. I feel that although Rare was good, it was also overrated, but it did make quality products which is nothing to be sniffed at.

joefish
I can't say I've played them all, but I love *Diddy Kong Racing*. More variety than *Mario Kart*, a great adventure mode, and the planes and the hovercraft are fun to race.

mayhem
Favourite game? Bit like picking a favourite child. *Perfect Dark* was arguably better than *GoldenEye*, but the latter got more play probably over the years.

Bub&Bob
Easy, *Blast Corps*. Just tremendous fun and is in my top ten favourite videogames list.

Merman
Has to be *Blast Corps*. Very satisfying to cause destruction on a large scale.

kiwimike
Man, Rare had some terrific games. *GoldenEye* and *Perfect Dark* are masterpieces, the latter didn't get the recognition it deserved due to hype, but both are awesome games.

Antiriad2097
Banjo-Kazooie, one of those rare (sorry) N64 games that doesn't suffer from blurry textures.

ArchaicKoala
I've a new found respect for *Diddy Kong Racing* as it took the genre to a new level by actually having a story-driven single-player mode, I still think the multiplayer side is poor though compared to *MK64*.

adippm82
I spent the most time on *GoldenEye*, but *Banjo-Kazooie* and *Jet Force Gemini* were so much fun, difficult to choose between them. Rare did not really make a bad game for the N64, and in my opinion, the machine would have floundered without their excellent input.

mlucifersam
I have to go with *Donkey Kong 64*. Spent hours on it during a bout of illness just after it came out. My day consisted of coffee, Marlboro Lights and *Donkey Kong*.

retro GAMER

Imagine Publishing Ltd
Richmond House, 33 Richmond Hill,
Bournemouth, Dorset, BH2 6EZ
☎ +44 (0) 1202 586200
Web: www.imagine-publishing.co.uk
www.retrogamer.net
www.greatdigitalmags.com

Magazine team

Editor **Darran Jones**
retrogamer@imagine-publishing.co.uk
☎ 01202 586237
Editor In Chief **Dan Hutchinson**
Senior Staff Writer **Nick Thorpe**
Production Editor **Drew Sleep**
Art Editor **Jonathan Wells**
Senior Art Editor **Andy Downes**
Photographer **James Sheppard**
Publishing Director **Aaron Asadi**
Head Of Design **Ross Andrews**

ip Official Awards DESIGNER OF THE YEAR

Contributors
Richard Burton, Paul Davies, Martyn Carroll, David Crookes, Paul Drury, Craig Grannell, Jason Kelk, Graeme Mason, Damien McFerran, Rory Milne, Dennis Murphy, Sam Ribbits

Advertising
Digital or printed media packs are available on request
Head of Sales Hang Deretz
☎ 01202 586442
hang.deretz@imagine-publishing.co.uk
Account Manager Anthony Godsell
☎ 01202 586420
anthony.godsell@imagine-publishing.co.uk

International
Retro Gamer is available for licensing. Contact the International department to discuss partnership opportunities.
Head of International Licensing Cathy Blackman
☎ +44 (0) 1202 586401
licensing@imagine-publishing.co.uk

Subscriptions
For all subscription enquiries
email retrogamer@servicehelpline.co.uk
☎ (UK) 0844 848 8412
☎ (Overseas) +44 1795 592 872
13 issue subscription UK – £51.90
13 issue subscription Europe – £70
13 issue subscription ROW – £80

Circulation
Head of Circulation Darren Pearce
☎ 01202 586200

Production
Production Director Jane Hawkins
☎ 01202 586200

Finance
Finance Director Marco Peroni

Founder
Group Managing Director Damian Butt

Printing & Distribution
Printed by Southernprint Ltd, 17-21 Factory Road, Upton Industrial Estate, Poole, Dorset, BH16 5SN
☎ 01202 628 300

Distributed in the UK, Eire & Rest of the World by: Marketforce, 5 Churchill Place, Canary Wharf, London, E14 5HU
☎ 0203 787 9060
www.marketforce.co.uk

Distributed in Australia by: Gordon & Gotch Australia Pty Ltd, 26 Rodborough Road, Frenchs Forest NSW 2086 Australia
☎ +61 2 9972 880
www.gordongotch.com.au

ISSN 1742-3155

IMAGINE PUBLISHING

recycle
When you have finished with this magazine please recycle it.

>> LOAD 154

nextmonth

ON SALE 21 APRIL 2016

CREATING CROC

We speak to the developers behind the PlayStation and Saturn's ambitious answer to Mario

ALSO INSIDE

20 Years Of Quake, Commodore Vic-20, **Top Gear,** Stuart Cox, **Ultimate Guide: Renegade,** Mario Kart 64, **Microids,** Popeye, **The History Of Dead Or Alive** Ultimate Guide: Desert Strike, **Atic Atac,** **Licence To Thrill: Cobra**



© Simon Keating


CONSOLE PASSION
WWW.CONSOLEPASSION.CO.UK
SERVING THE RETRO GAMING COMMUNITY FOR MORE THAN 15 YEARS
ONLINE ORDERING AND WORLDWIDE SHIPPING OF THOUSANDS OF GAMES AND CONSOLES.
MOST GAMES AND CONSOLES ARE COMPLETE WITH THEIR ORIGINAL BOXES AND INSTRUCTIONS.
GAMES COLLECTIONS AND CONSOLES BOUGHT OR PART EXCHANGED.
MANY RARE JAPANESE GAMES STOCKED.
THE UK'S PREMIER MODIFIED CONSOLE SUPPLIER.
PayPal
realex
Verified by GeoTrust
Maestro VISA MasterCard VISA ELECTRON SWITCH
Find us on Facebook and Twitter

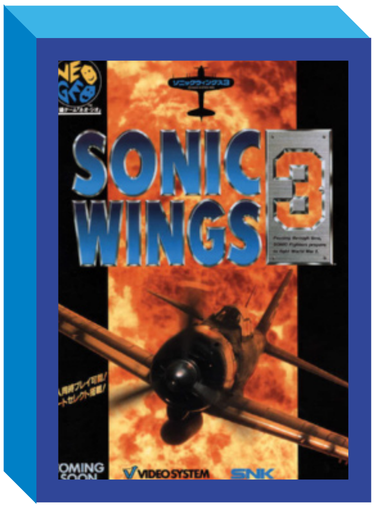

retro gaming cables .co.uk
Quality audio video cables made in Great Britain
Get 10% off with code 'RETRO8'
RGB SCART Cables available for:
• Sega Mega Drive 1 & 2
• Nintendo SNES (PAL & NTSC)
• SNK Neo Geo AES & CD/CDZ
• BBC Acorn Micro
• Sinclair ZX Spectrum + 128k, +2 & QL
• Atari STF, STE & STFM
• Amstrad CPC 464
• Various Arcade Jamma Superguns (Sigma, Pana, CMVS etc)
Plus many more on our website
RGB SCART cable key features:
• Vast improvement over traditional RF, composite video and s-video
• Pixel clear RGB video
• Improved sound quality
• No more tuning
• SCART TV plug & Play
• Compatible with up-scaling units i.e. Framemeister Mini XRGB
Buy direct from www.retrogamingcables.co.uk/store
FREE UK Delivery


AMSTRAD
ATARI
SEGA
Nintendo
PlayStation
PC Engine
SNK
NEO GEO
PLAYNATION GAMES
We want your collections of RETRO GAMES!
We Buy Nintendo, Sega, Atari, Commodore, Sinclair, PlayStation and Amstrad.
Please visit us instore for a price.
Email us at weare1up@gmail.com
Call us on 020-8760-0749
PLAYNATION GAMES
17 High Street, Croydon, Surrey
CR0 1QB
East Croydon
Playnation Games


MUTANT CATERPILLAR GAMES
... SINCLAIR ... COMMODORE ... ACORN ...
MACHINES
REPAIRS
HARDWARE
SOFTWARE
10% OFF your first order when you use discount code "retrogc1"
ALL OUR STOCK IS TESTED, WORKING AND GUARANTEED
FREE UK inland postage - excellent international postage rates
www: www.mutant-caterpillar.co.uk
ebay: mutant-caterpillar
email: sales@mutant-caterpillar.co.uk
tel: 01970 625441
... AMSTRAD ... ATARI ... ANYTHING ELSE!


10 TOP STEAM GAMES
DELIVERED EVERY MONTH FOR JUST £13.99
CALL OF DUTY BLACK OPS III
Fallout 4
TOM CLANCY'S RAINBOW SIX SIEGE
XCOM 2
ARK SURVIVAL EVOLVED
JUST CAUSE 3
GET 5% OFF ANY PACKAGE FOR LIFE
USE CODE: GAMER5
STEAM CRATE
WWW.STEAMCRATE.CO.UK

ENDGAME



SONIC WINGS 3 – ROBO-KEATON'S ENDING

» Arcade shoot-'em-ups weren't exactly hard to come by in the Nineties, so any new release had to stand out from the crowd. That's why the relatively straightforward Sonic Wings gave way to much crazier sequels, featuring bizarre elements such as dolphin pilots and a robotic version of one of the original game's characters – and the latter is who we're catching up with as we skip to the end of Sonic Wings 3.



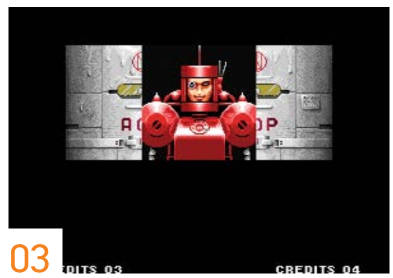
01

» Poor old Robo-Keaton used to be a regular bloke, but after the events of the first game found himself transformed into a robot. Luckily, Dr Kowful has been working on a brand new human body for our plucky hero. Rejoice!



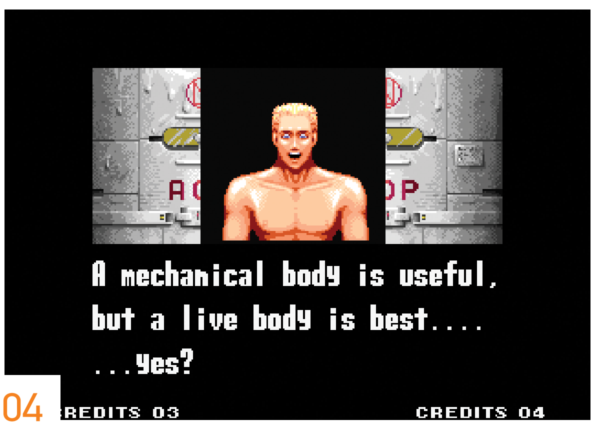
02

» Keaton is incredibly excited to stop being a robot. He should be – that drill arm looks incredibly inconvenient, and red just isn't his colour. Additionally, his battery life is awful whenever he connects to a wi-fi hotspot.



03

» As he steps into the machine that will restore his humanity, Keaton can only imagine the sensations he'll be able to experience. Fine wines and cheeses will once again be enjoyable, and he'll actually be able to feel a hug.



04

»Success! Our hero is back in a new body, which he loudly proclaims the virtue of. Still, he can't help but think that something's a little off about the new flesh. Is this just a natural re-adjustment to human life, or a sign that things aren't what they once were?



05

» *Oh*... It appears that rather than consign that drill arm to the scrapheap, Dr Kowful would rather turn it into junk – and has been making some unauthorised modifications to Keaton's most intimate areas in order to achieve that goal. Apparently, mad scientists can't be trusted with human bodies. Who knew?


GamerMania
LONDON
EXCEL - LONDON
29-31 JULY 2016
@GAMER_LDN
WWW.GAMERMANIALONDON.COM
An ADNEC Group Company
EXCEL
LONDON
powered by
MCM
CENTRAL